

2022-2023

This booklet contains tests for

Art (grades 4-6)
Calculator Applications (grades 6-8)
Chess Puzzle (grades 2-8)
Creative Writing (grade 2)
Dictionary Skills (grades 5-6)
Listening Skills (grades 5-6)
Maps, Graphs & Charts (grades 5-6)
Mathematics (grades 6-8)
Number Sense (grades 4-6)
Ready Writing (grades 3-6)
Science (now grades 6-8)
Social Studies (grades 5-6)
Storytelling (grades 2-3)

**Duplicate materials as needed.
For contest rules, refer to the
A+ Handbook or UIL website.**

**ELEMENTARY ACADEMIC
STUDY MATERIALS BOOKLET**

www.uiltexas.org/aplus



UNIVERSITY INTERSCHOLASTIC LEAGUE

* Updated answer sheets for applicable events and updated Ready Writing evaluation are included.

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 60. Initials _____

_____ out of 60. Initials _____

Papers contending to place:

_____ out of 60. Initials _____

**To calculate final score, add Part A and Part B together.*



**University Interscholastic League
A+ Art Contest Part B • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level:

4 5 6 7 8

Art Elements

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. True False

11. True False

12. True False

13. True False

14. True False

15. True False

Art History

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. True False

26. True False

27. True False

28. True False

29. True False

30. True False

**2021-2022 Invitational Art Test - Grades 4-6
(Part B)**

Answer Key

| Elements | | | History | | |
|-----------------|-------------|----------|----------------|--------------|----------|
| 1. | c | (23, 56) | 16. | a | (20) |
| 2. | cityscape | (8) | 17. | c | (52) |
| 3. | d | (45) | 18. | Rococo | (12, 28) |
| 4. | b | (27) | 19. | a | (42) |
| 5. | triangle | (41) | 20. | c | (31) |
| 6. | a | (46) | 21. | France | (10) |
| 7. | b | (40) | 22. | a | (48) |
| 8. | perspective | (11, 18) | 23. | b | (29) |
| 9. | d | (50) | 24. | Contemporary | (8, 49) |
| 10. | T | (30) | 25. | T | (10, 36) |
| 11. | T | (11, 19) | 26. | F | (25) |
| 12. | T | (47) | 27. | T | (39) |
| 13. | F | (24) | 28. | T | (47) |
| 14. | F | (32) | 29. | F | (51) |
| 15. | T | (43) | 30. | T | (28) |

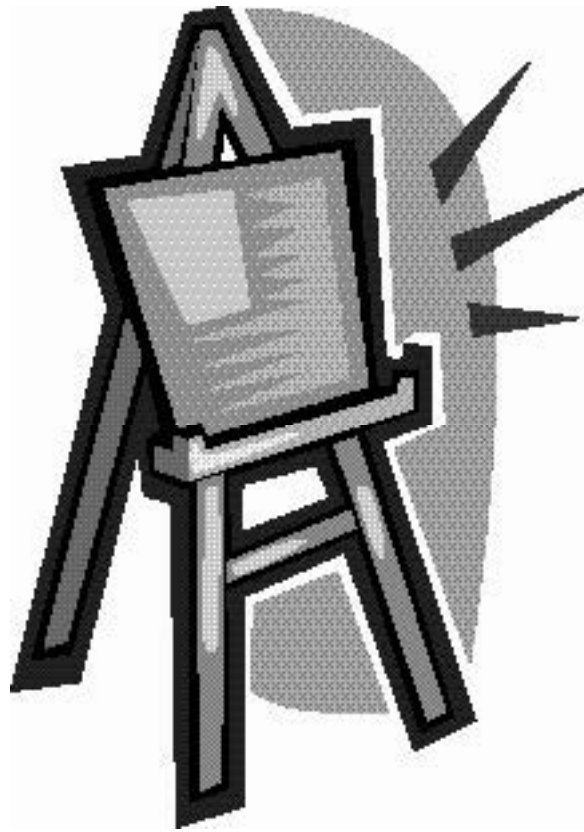
Numbers in parentheses are page numbers where answers can be found in the *Art Smart Bulletin* for 2021-2022 and 2022-2023. Correct spelling is not required for short answers.

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Art Contest

grades 4, 5, & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2021-2022 Invitational Art Test Part B - Grades 4-6
Art Elements Section

1. Which of these pictures is painted on a very small wood panel?
 - a. *River Landscape*
 - b. *Pink Cyclamen*
 - c. *Saint George and the Dragon*
 - d. *Three Maries at the Tomb*

2. A painting with streets and buildings as its main subject is called a _____.

3. In which of these paintings are complementary colors most important in the composition of the painting?
 - a. *Portrait of Michol (Miguel Pol?)*
 - b. *Old Faithful Geyser, Yellowstone National Park*
 - c. *New York at Night*
 - d. *Oarsmen at Chatou*

4. The mood of *Three Maries at the Tomb* is one of
 - a. peacefulness and calm.
 - b. drama and surprise.
 - c. play and relaxation.
 - d. busy activity.

5. The composition of *Still Life with Vegetables* is structured around what geometric shape?

6. The artist added liveliness to *Old Faithful Geyser, Yellowstone National Park* by
 - a. using curved lines in the spray and clouds.
 - b. showing people in the foreground.
 - c. using complementary colors.
 - d. leaving small areas of the canvas unpainted.

7. What color in *Mounted Trumpeters of Napoleon's Imperial Guard* keeps our eyes moving through the image?
 - a. gray
 - b. red
 - c. white
 - d. black

8. Painting roads wide in the foreground and growing narrower in the background is a technique artists use to show _____.
9. We see different points of view in the same painting in
- Mountains at Collioure*
 - A Pastoral Concert*
 - Pink Cyclamen*
 - Still Life with Milk Jug and Fruit*

True/False

10. In *Queen Henrietta Maria with Sir Jeffrey Hudson*, the poses of the queen and Sir Jeffrey help create a casual image, as if they are about to step out of the picture.
11. Something in a painting that repeats and creates a kind of pattern is called rhythm.
12. The mood of *The Harvesters* is calm and peaceful.
13. The main focus of attention in *Portrait of an Old Woman* is the dark background.
14. The plates and glass in *A Roemer with Grapes, a Pewter Plate, and a Roll* are created with broad, loose brushstrokes.
15. The artist added liveliness to *Pink Cyclamen* by using complementary colors.

Art History Section

16. A Renaissance invention that helped more people become better educated was the
- printing press.
 - steam engine.
 - television.
 - calculator.
17. Where was Weber born?
- Germany
 - Italy
 - Russia
 - America
18. A graceful and decorative painting style that developed during the Baroque period is called _____.

19. Before he became a painter, Durand worked as
- an engraver.
 - a lawyer.
 - an architect.
 - a musician.
20. De Vlieger
- is best known for the bright, warm colors he uses in his landscapes.
 - spent many years painting portraits in England.
 - painted during the Baroque period of art history.
 - made his living as an engraver while he studied to become an artist.
21. In what country did the Impressionist style of painting first develop?
22. Which of these artists was one of the most important American Impressionists?
- Hassam
 - Peale
 - Couse
 - Monet
23. *River Landscape*
- was painted by a French artist.
 - is an imaginary scene set in the Flemish countryside.
 - was painted during the Modern period of art history.
 - is painted in the Romantic style.
24. Abstract painting first developed in the _____ period.

True/False

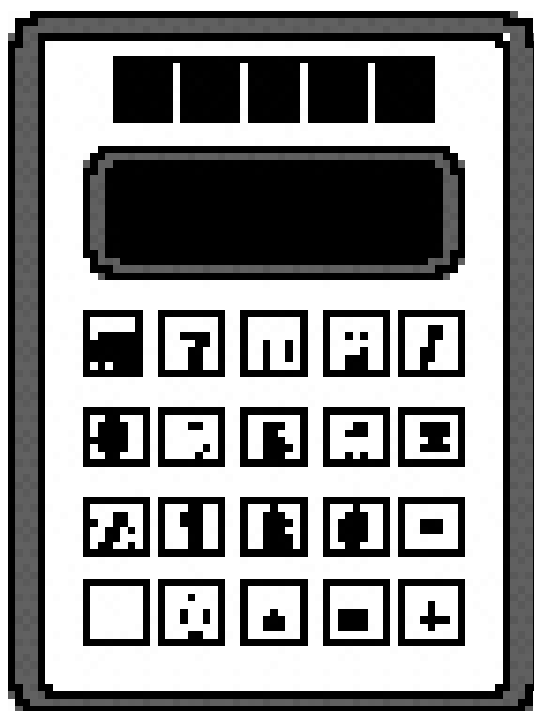
25. Neoclassical painters often based their figures on ancient Greek or Roman statues.
26. *The Small Cowper Madonna* is Raphael's only Madonna painting that still exists today.
27. Sir Joshua Reynolds was made a knight by King George III of England.
28. *The Harvesters* is painted in the Pointillist style.
29. Derain painted in the same style throughout his career as an artist.
30. The Netherlands was one of the most important centers of art during the Baroque period.

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test A

22X-1. $-662 - 911$ ----- 1= _____

22X-2. $30 - 19 - 23$ ----- 2= _____

22X-3. $473 + 495 + 364$ ----- 3= _____

22X-4. $15 - 11 - 51 + 45$ ----- 4= _____

22X-5. $428 - 894 - 1010 - 353$ ----- 5= _____

22X-6. $78.8 + 201 - 138 - 319 - 209$ ----- 6= _____

22X-7. $\pi + 1.67 + 0.215 + 1.37 + 1.61$ ----- 7= _____

22X-8. $3.95 - 3.37 + \pi - 4.46 - 3.54$ ----- 8= _____

22X-9. $87.5 \times 211 \times 136$ ----- 9= _____

22X-10. $56.3 \times 389 \times 1650 \times 41.9$ ----- 10= _____

22X-11. What is the sum of 23.7 6.89 and 26.5? ----- 11= _____

22X-12. Matt rode his bicycle 49 miles in 4.5 hours. What was his average speed, in miles per hour (mph), for the bike ride? ----- 12= _____ mph

22X-13. How many days are in the second quarter of this year? --- 13= _____ days (integer)

22X-14. $(-422)[580 \times 175/582]$ ----- 14= _____

22X-15. $373/[410 \times 50 \times 313]$ ----- 15= _____

22X-16. $\left[\frac{136}{87}\right][(202/36) - 0.735]$ ----- 16= _____

22X-17. $\left[\frac{423}{328}\right] [(172/359) + 0.434]$ ----- 17= _____

22X-18. $\left[\frac{(0.316 + 0.216)}{32/45}\right] \left[\frac{59.4}{5.76 \times 10^{-4}}\right]$ ----- 18= _____

22X-19. $\left[\frac{328/230}{248/152}\right] \{5.57 + 31.9 - 27.2\}$ ----- 19= _____

22X-20. $(0.427)[242/276 \times 130/135] - 0.262$ ----- 20= _____

22X-21. $\frac{160}{(86 - 113)} - \frac{(95 - 40)}{179}$ ----- 21= _____

22X-22. $\frac{(70.7 + 17.6 - 31.5)}{\{(46.7 - 14.8)/(0.059)\}}$ ----- 22= _____

22X-23. $\frac{(3530 \times 767)/1290}{(1140 \times 0.864) + 788}$ ----- 23= _____

22X-24. A golf ball weighs 1.62 ounces. How much does a bucket of forty-eight golf balls weigh, in pounds (lbs), neglecting the weight of the bucket itself? ----- 24= _____ lbs

22X-25. A US forever postage stamp, with the likeness of professional baseball player, Yogi Berra, was introduced for sale in 2021. If the cost of each stamp is 55¢, what is the greatest number of these stamps I can purchase for \$20?----- 25= _____ stamps (integer)

22X-26. In 2020, Taylor Swift's *Folklore* album reportedly sold 2.3 million album-units. Assuming there are exactly 366 days in that year, about how many albums-units (albm) were sold each hour? ----- 26= _____ albm

22X-27. $(0.126)[(0.00444/0.00447)(0.00101 + 0.00139)]$ ----- 27= _____

22X-28. $\frac{(0.00355 + 0.0146)(70.4 + 50.8)}{(9.14 \times 10^{10})}$ ----- 28= _____

22X-29. $\frac{(15.6 - 8.47)(44.7 + 33.1)}{(7.03 \times 10^{12})}$ ----- 29= _____

22X-30. $\frac{1}{0.00411} + \frac{1}{(\pi)(0.029 - 0.016)}$ ----- 30= _____

22X-31. $\frac{1}{9.41} + \frac{1}{(96.3 - 91.4)}$ ----- 31= _____

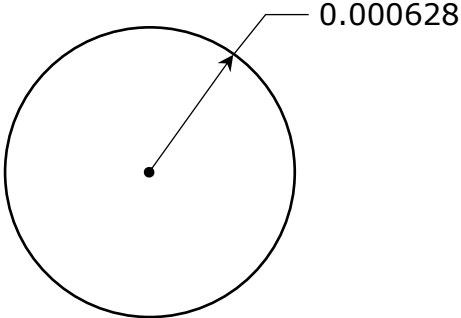
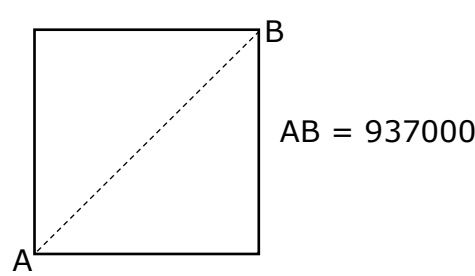
22X-32. $(0.0647) \left[\frac{0.004}{(3.46 \times 10^{-11})} \right]$ ----- 32= _____

22X-33. $\frac{1}{34.3} - \frac{1}{(41.1 + 39.5)}$ ----- 33= _____

22X-34. $1/(0.0193 - 0.0153) - 1/(0.00182)$ ----- 34= _____

22X-35. During one week in June, it rained 2.3 in, 0.75 in, 1.25 in, 3.30 in and 0.25 in. What is the average daily rainfall for that week? - 35= _____ in

22X-36. Kenzie starts from home and rides her bicycle at an average speed of 11.5 mph. Noah starts 14 minutes later and follows Kenzie exact path but at an average speed of 13 mph. How long does it take Noah to catch Kenzie? ----- 36= _____ min

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22X-37.</p> <p style="text-align: center;">CIRCLE</p> <div style="text-align: center;">  <p style="margin-left: 100px;">0.000628</p> <p style="text-align: center;">Circumference = ?</p> </div> <p>22X-37= _____</p> | <p>22X-38.</p> <p style="text-align: center;">SQUARE</p> <div style="text-align: center;">  <p style="margin-left: 100px;">AB = 937000</p> <p style="text-align: center;">Square Area = ?</p> </div> <p>22X-38= _____</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22X-39. $\sqrt{\frac{0.43 + 1}{11.2 - 9.09}}$ ----- 39= _____

22X-40. $(236 + 40)^2(364 + 139)^2$ ----- 40= _____

22X-41. $\frac{(2170 + 2580)^2}{(0.176 - 0.0956)^3}$ ----- 41= _____

22X-42. $\sqrt{128} + \sqrt{157 + 54.8} - (\pi)\sqrt{17}$ ----- 42= _____

22X-43. $\sqrt{(486/1080) + 0.272 - 0.209}$ ----- 43= _____

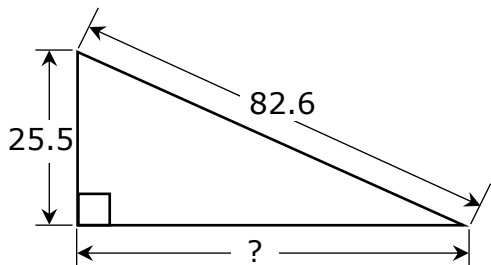
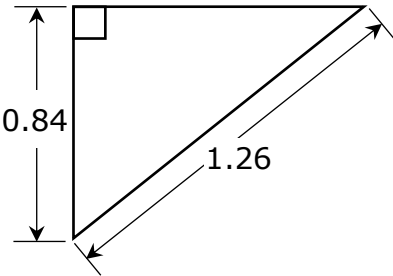
22X-44. $(1/\pi)\sqrt[3]{\frac{0.0154 + 0.0141}{0.14 - 0.125}}$ ----- 44= _____

22X-45. $\frac{1}{\sqrt{284 + 273 + 971}} + \left(\frac{1}{\sqrt{2.24}}\right)^3$ ----- 45= _____

22X-46. $(506)\sqrt{11700 + 21700 - 11600}$ ----- 46= _____

22X-47. Genny walked due west 124 meters and stopped. Paige started at the same location but she walked due south for 83.7 meters and stopped. How far apart are the two women? ----- 47= _____ m

22X-48. Wes cut a square sheet exactly in half along the diagonal. If the longest edge of the triangle measures 7.25 in, what is the area of one side of the triangle sheet? ----- 48= _____ in²

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22X-49. RIGHT TRIANGLE</p>  <p>22X-49= _____</p> | <p>22X-50. RIGHT TRIANGLE</p>  <p>Triangle Area = ?</p> <p>22X-50= _____</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22X-51. $\left[\frac{1340 - 454 + \sqrt{3.59 \times 10^6 / 7.45}}{-12.8 + 13.9} \right]^5$ ----- 51= _____

22X-52. $\left[\frac{\sqrt{\sqrt{22400 - 20200}}}{-(14.4 - 15.3)} \right]^2 [6.49 + 6.95]$ ----- 52= _____

22X-53. $\sqrt{\frac{1.53 \times 10^{12}}{(1380)(351)}} + \frac{(3.58 \times 10^5 - 1.41 \times 10^5)}{(52.6 + 58.9)}$ ----- 53= _____

22X-54. $0.0933 + \sqrt{(438)/(1760)} - (0.572 + 0.446)^2$ ----- 54= _____

22X-55. $(81.7)^2 \sqrt{(1.67)/(423)} - (182 + 77.4)$ ----- 55= _____

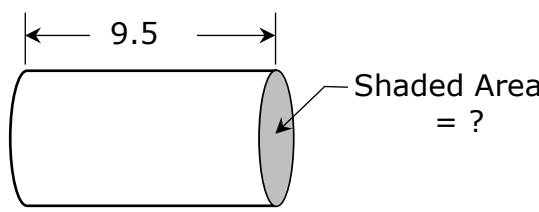
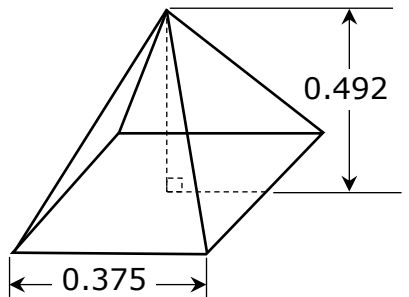
22X-56. $(0.0977)(3.47 \times 10^8)^{1/4} - [(165)(208)]^{1/4}$ ----- 56= _____

22X-57. $\sqrt{\frac{(104)(10)}{(235) + (180)}} - 1.77$ ----- 57= _____

22X-58. $(\text{deg}) \cos(1030^\circ) + (12.6/4.35)$ ----- 58= _____

22X-59. Andy can mow his lawn in 45 minutes using the riding lawnmower and he can mow the same lawn in 3.25 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 28 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22X-60. The formula that allows one to calculate the pressure in a liquid is $P = P_0 + \rho gh$. P stands for the pressure at a certain depth in the liquid, P_0 is the atmospheric pressure at sea level, ρ is the density of the liquid, g is the acceleration due to gravity, and h is the depth within the liquid. If the pressure in the sea at a certain depth is 300,000 Pascals, the pressure at sea level is 101,000 Pascals, the density of sea water is 1029 Kg/m³, and the acceleration due to gravity is 9.81 m/sec², what is this certain depth in the sea? (Note that the units given in this problem will yield a depth in units of meters.) ----- 60= _____ m

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22X-61. RIGHT CYLINDER</p>  <p>Cylinder Volume = 175</p> <p>22X-61= _____</p> | <p>22X-62. SQUARE PYRAMID</p>  <p>Volume = ?</p> <p>22X-62= _____</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|

22X-63. $\frac{18!}{10!} + 13!$ ----- 63= _____

22X-64. (deg) $\frac{\cos(184^\circ)}{149}$ ----- 64= _____

22X-65. $(1.20 \times 10^8 - 8.44 \times 10^7)^{-8} (1.67 \times 10^8)$ ----- 65= _____

22X-66. (rad) $\sin\left[\frac{(400)(\pi)}{(292)(2.12)}\right]$ ----- 66= _____

22X-67. (deg) $(1340 - 5140)\tan(464^\circ) + 9680$ ----- 67= _____

22X-68. (deg) $\frac{\cos(605^\circ)}{1660 + 447}$ ----- 68= _____

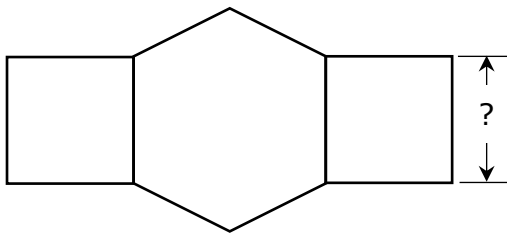
22X-69. (rad) $(116)\sin(21.4)$ ----- 69= _____

22X-70. $(17.4 - 16 + 47.4)^{2/3}$ ----- 70= _____

22X-71. Amanda decided to completely wrap a round hay bale and make it look like a giant marshmallow. If the bale is shaped like a cylinder with diameter 5 feet and length 4 feet, what is the total surface area she'll need to wrap? ----- 71= _____ ft^2

22X-72. The product of two consecutive odd integers is 1023. What is the sum of the two integers? ----- 72= _____ integer

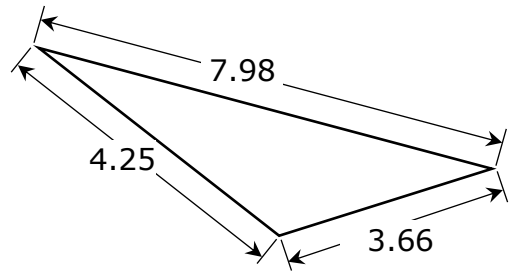
22X-73.
REGULAR HEXAGON AND SQUARES



Perimeter = 329

22X-73= _____

22X-74.
SCALENE TRIANGLE



Semi-Perimeter = ?

22X-74= _____

22X-75. $\frac{(5.06)^{0.793}(7.63)^{0.772}}{(4.2 - 2.05)^{-10}}$ ----- 75= _____

22X-76. $\ln\left[\frac{348 + 342 + 88}{92 + 396 - 104}\right]$ ----- 76= _____

22X-77. $\log\sqrt{\frac{0.356 - 0.222}{(6.13)(0.715)}}$ ----- 77= _____

22X-78. $\frac{\log[17200 + (236)(103)]}{1.88 + \log[164 + 153]}$ ----- 78= _____

22X-79. $1 + 2 + 3 + \dots + 866$ ----- 79= _____

22X-80. $1 + \frac{(0.509)^4}{2} - \frac{(0.509)^6}{6} + \frac{(0.509)^8}{24} - \frac{(0.509)^{10}}{120}$ ----- 80= _____

2022 UIL MS Calculator Test A Answer Key

| | | |
|----------------------------------------|--------------------------------------------|----------------------------------------------|
| 22X-1 = -1570 = -1.57×10^3 | 22X-14 = -73600 = -7.36×10^4 | 22X-27 = 0.000300 = 3.00×10^{-4} |
| 22X-2 = -12.0 = -1.20×10^1 | 22X-15 = 5.81×10^{-5} | 22X-28 = 2.41×10^{-11} |
| 22X-3 = 1330 = 1.33×10^3 | 22X-16 = 7.62 = 7.62×10^0 | 22X-29 = 7.89×10^{-11} |
| 22X-4 = -2.00 = -2.00×10^0 | 22X-17 = 1.18 = 1.18×10^0 | 22X-30 = 268 = 2.68×10^2 |
| 22X-5 = -1830 = -1.83×10^3 | 22X-18 = 77200 = 7.72×10^4 | 22X-31 = 0.310 = 3.10×10^{-1} |
| 22X-6 = -386 = -3.86×10^2 | 22X-19 = 8.98 = 8.98×10^0 | 22X-32 = 7.48×10^6 |
| 22X-7 = 8.01 = 8.01×10^0 | 22X-20 = 0.0985 = 9.85×10^{-2} | 22X-33 = 0.0167 = 1.67×10^{-2} |
| 22X-8 = -4.28 = -4.28×10^0 | 22X-21 = -6.23 = -6.23×10^0 | 22X-34 = -299 = -2.99×10^2 |
| 22X-9 = 2.51×10^6 | 22X-22 = 0.105 = 1.05×10^{-1} | 22X-35 = 1.57 = 1.57×10^0 |
| 22X-10 = 1.51×10^9 | 22X-23 = 1.18 = 1.18×10^0 | 22X-36 = 107 = 1.07×10^2 |
| 22X-11 = 57.1 = 5.71×10^1 | 22X-24 = 4.86 = 4.86×10^0 | 22X-37 = 0.00395 = 3.95×10^{-3} |
| 22X-12 = 10.9 = 1.09×10^1 | 22X-25 = 36 Integer Answer | 22X-38 = 4.39×10^{11} |
| 22X-13 = 91 Integer Answer | 22X-26 = 262 = 2.62×10^2 | |

2022 UIL MS Calculator Test A Answer Key

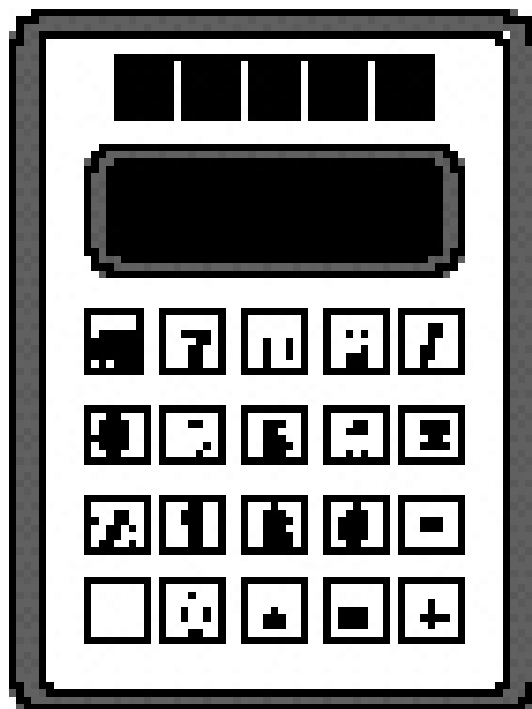
| | | | | | | | |
|--------|-------------------------|--------|--------------------------|--------|--------------------------|--------|--------------------------|
| 22X-39 | = 0.823 | 22X-51 | = 6.12×10^{15} | 22X-61 | = 18.4 | 22X-73 | = 32.9 |
| | = 8.23×10^{-1} | 22X-52 | = 778 | | = 1.84×10^1 | | = 3.29×10^1 |
| 22X-40 | = 1.93×10^{10} | | = 7.78×10^2 | 22X-62 | = 0.0231 | 22X-74 | = 7.95 |
| | | 22X-53 | = 3720 | | = 2.31×10^{-2} | | = 7.95×10^0 |
| 22X-41 | = 4.34×10^{10} | | = 3.72×10^3 | 22X-63 | = 7.99×10^9 | 22X-75 | = 36700 |
| | | 22X-54 | = -0.444 | | = -0.00670 | | = 3.67×10^4 |
| 22X-42 | = 12.9 | | = -4.44×10^{-1} | 22X-64 | = -0.00670 | 22X-76 | = 0.706 |
| | = 1.29×10^1 | | | | = -6.70×10^{-3} | | = 7.06×10^{-1} |
| 22X-43 | = 0.716 | 22X-55 | = 160 | 22X-65 | = 6.47×10^{-53} | 22X-77 | = -0.757 |
| | = 7.16×10^{-1} | | = 1.60×10^2 | | = 8.96×10^{-1} | | = -7.57×10^{-1} |
| 22X-44 | = 0.399 | 22X-56 | = -0.276 | 22X-66 | = 0.896 | 22X-78 | = 1.05 |
| | = 3.99×10^{-1} | | = -2.76×10^{-1} | | = 8.96×10^{-1} | | = 1.05×10^0 |
| 22X-45 | = 0.324 | 22X-57 | = -0.187 | 22X-67 | = 24900 | 22X-79 | = 375000 |
| | = 3.24×10^{-1} | | = -1.87×10^{-1} | | = 2.49×10^4 | | = 3.75×10^5 |
| 22X-46 | = 74700 | 22X-58 | = 3.54 | 22X-68 | = -0.000201 | 22X-80 | = 1.03 |
| | = 7.47×10^4 | | = 3.54×10^0 | | = -2.01×10^{-4} | | = 1.03×10^0 |
| 22X-47 | = 150 | 22X-59 | = 102 | 22X-69 | = 64.6 | | |
| | = 1.50×10^2 | | = 1.02×10^2 | | = 6.46×10^1 | | |
| 22X-48 | = 13.1 | 22X-60 | = 19.7 | 22X-70 | = 13.4 | | |
| | = 1.31×10^1 | | = 1.97×10^1 | | = 1.34×10^1 | | |
| 22X-49 | = 78.6 | | | 22X-71 | = 165 | | |
| | = 7.86×10^1 | | | | = 1.65×10^2 | | |
| 22X-50 | = 0.394 | | | 22X-72 | = 64 | | |
| | = 3.94×10^{-1} | | | | Integer Answer | | |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test B

22Y-1. $4990 - 4250$ ----- 1= _____

22Y-2. $13 - 24 + 8$ ----- 2= _____

22Y-3. $-14.1 + 2.2 + 6.3$ ----- 3= _____

22Y-4. $11 - \pi - 2 + 4$ ----- 4= _____

22Y-5. $1820 - 3250 - 4750 + 2100$ ----- 5= _____

22Y-6. $338 + 51 - 146 - 317 + 89.5$ ----- 6= _____

22Y-7. $(0.884 - \pi) + (2.04 - 1.78 - 4.36)$ ----- 7= _____

22Y-8. $(2.28 + 2.31 - \pi) - (5.4 + 1.26)$ ----- 8= _____

22Y-9. $379 \times 44.4 \times 546$ ----- 9= _____

22Y-10. $608 \times 138 \times 59.3 \times 950$ ----- 10= _____

22Y-11. What is the product of pi and 4830? ----- 11= _____

22Y-12. A one mile stretch of highway, Interstate 10 (I10), cost 4.5 million dollars. How much did a one-foot length of the highway cost? - 12=\$_____

22Y-13. A fortnight equals two weeks. How many hours are there in two fortnights? ----- 13= _____ hrs (integer)

22Y-14. $(136)[116 \times 121/73]$ ----- 14= _____

22Y-15. $(166/26)[32 - 212]$ ----- 15= _____

22Y-16. $\{(-567)(113 - 601)(633)\} - 7.48 \times 10^7$ ----- 16= _____

22Y-17. $\left[\frac{28}{179}\right] [(55/98) + 0.409]$ ----- 17= _____

22Y-18. $\left[\frac{(5130/7040) - (1060/3040)}{0.00141/(4.00 \times 10^{-4})}\right]$ ----- 18= _____

22Y-19. $\frac{[2.42/(2.13)]/1.58}{(8.07 \times 10^{-4} \times 9.40 \times 10^{-4})(61.4)}$ ----- 19= _____

22Y-20. $\frac{(235)(0.0442)}{574} (0.0252 - 0.019)$ ----- 20= _____

22Y-21. $\frac{280}{(127 - 279)} - \frac{(80 - 84)}{320}$ ----- 21= _____

22Y-22. $\frac{(6870 \times 2260)/7300}{(1300 \times 47.8) + 40700}$ ----- 22= _____

22Y-23. $\left[\frac{159 + 344}{814 - 764}\right] \left[\frac{358}{776}\right]$ ----- 23= _____

22Y-24. At a going-out-of-business sale Mike was promised he could buy a ton of 11-lb bowling balls for \$100. What is the least number of balls that Mike should get for his \$100? ----- 24= _____ balls (integer)

22Y-25. Dan's new truck is supposed to get 18.3 miles per gallon of fuel used. If Dan drives 428 miles how many gallons of fuel does his truck use? ----- 25= _____ gal

22Y-26. The 2020-21 adopted property tax rate for the Springtown school district was \$1.2442 per \$100 property evaluation. If a new home and the land it is on in the Springtown ISD evaluated at \$397,750, how much did the school district taxes for the property amount to? ----- 26= \$ _____

22Y-27. $[887 - (1590 + 2610)] + [(1.17)(1930 - 3090)]$ ----- 27= _____

22Y-28. $(0.0361)[[9.79 \times 10^{-4} / (0.00451)][0.0431 / (0.0575)]]$ ---- 28= _____

22Y-29. $\frac{(0.0072 - 0.0111)(144 + 247)}{(1.33 \times 10^{11})}$ ----- 29= _____

22Y-30. $\frac{(0.00302 + 0.0216)}{(2.48 \times 10^{11})}$ ----- 30= _____

22Y-31. $(3.26)[(3.06 \times 10^8) - (2.14 \times 10^8)]$ ----- 31= _____

22Y-32. $[15.7] \left[\frac{1/0.00348}{1/(0.00406)} \right]$ ----- 32= _____

22Y-33. $1/(0.231 - 0.146) - 1/(0.0323)$ ----- 33= _____

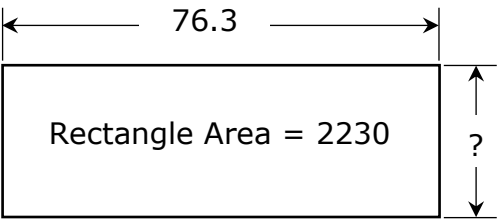
22Y-34. $\frac{1}{631} - \frac{1}{907} + \frac{1}{901}$ ----- 34= _____

22Y-35. If ninety thousand is divided by 31 what is the remainder? 35= _____ integer

22Y-36. One day Liz, who is 5' 8" tall cast a shadow of length 22.3 ft. A nearby tree cast a shadow of length 44 ft. How tall is the tree? ----- 36= _____ ft

22Y-37.

RECTANGLE

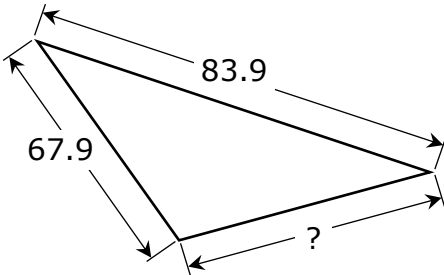


Rectangle Area = 2230

22Y-37= _____

22Y-38.

SCALENE TRIANGLE



Triangle Perimeter = 227

22Y-38= _____

22Y-39. $\left[\frac{3700 + (1/(1.51 \times 10^{-4}))}{(10900/6000) - 0.995} \right]^2$ ----- 39= _____

22Y-40. $\left[\frac{9.02}{41.3} \right] (5.25 + 24.2)^2$ ----- 40= _____

22Y-41. $\sqrt{\frac{0.0853 + 0.244}{31.6 - 14.8}}$ ----- 41= _____

22Y-42. $(1/\pi) \sqrt[3]{\frac{0.00911 + 0.021}{0.0156 - 0.00218}}$ ----- 42= _____

22Y-43. $\sqrt{44.4} + \sqrt{74.9 + 52.3} - (\pi)\sqrt{77.2}$ ----- 43= _____

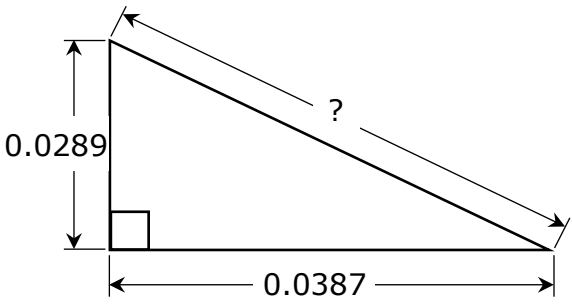
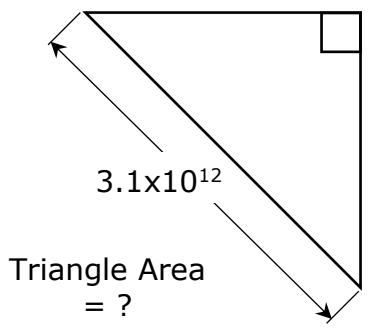
22Y-44. $(1/(6.06 \times 10^{-4}))(1770 - 1510)^3$ ----- 44= _____

22Y-45. $\sqrt{0.584 - 1490/6720} + 1/\sqrt{2.57 + 2.26}$ ----- 45= _____

22Y-46. $\frac{1}{\sqrt{3030 + 7190 + 4120}} + \left(\frac{1}{\sqrt{9.27}} \right)^4$ ----- 46= _____

22Y-47. Dan leaned the 24-ft long ladder against the wall of his business and the ladder stuck out 2 feet beyond the top edge of the wall. If the bottom of the ladder was 7.5 ft from the bottom of the wall, how tall is the wall of Dan's business? ----- 47= _____ ft

22Y-48. If the radius of the Earth is 3960 miles what is the straight line distance from the equator to geographic point of the North Pole?-- 48= _____ mi

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22Y-49. RIGHT TRIANGLE</p>  <p>22Y-49= _____</p> | <p>22Y-50. ISOSCELES RIGHT TRIANGLE</p>  <p>22Y-50= _____</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|

22Y-51. $\sqrt{\frac{2.39 \times 10^{-4}}{(1.35)(0.0901)}} + \frac{(3.79 - 16.4)}{(143 + 61.7)}$ ----- 51= _____

22Y-52. $\frac{(464 + 769 - 200)^3}{\sqrt{29900 + 24700 + 30000}}$ ----- 52= _____

22Y-53. $\left[\frac{15.5 + 8.43 + \sqrt{143 + 134}}{2080/3690} \right]^4$ ----- 53= _____

22Y-54. $\sqrt{\frac{(51600)(73200)}{(12100)(19000)}} - 3.27 + 1.4$ ----- 54= _____

22Y-55. $(18.1)^2 \sqrt{(348)/(1.66)} - (3910 + 3320)$ ----- 55= _____

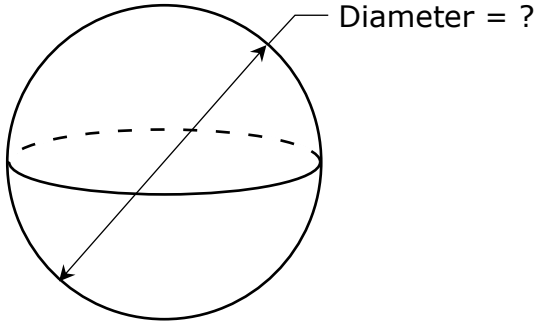
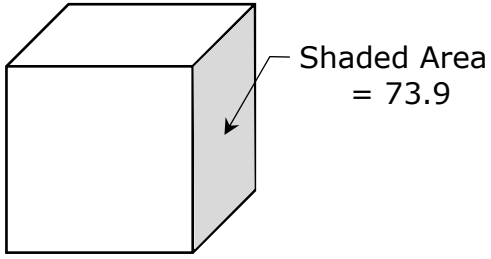
22Y-56. $(263)(1.28 \times 10^9)^{1/2} - [(2.30 \times 10^{10})(4.39 \times 10^{10})]^{1/3}$ ---- 56= _____

22Y-57. $(\text{rad}) \tan(284) + (369/213)$ ----- 57= _____

22Y-58. $\sqrt{\frac{1/(10.3 - 8.14)}{(25)(542 + 963)^{-2}}}$ ----- 58= _____

22Y-59. Andy can mow his lawn in 45 minutes using the riding lawnmower and he can mow the same lawn in 2.75 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 30 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22Y-60. The formula for finding the final speed of an object thrown straight down after a certain amount of time (disregarding any air friction) is $v_F = v_I + gt$; where v_F is the final speed, v_I is the initial speed, g is the acceleration due to gravity, 32.174 ft/sec^2 , and t is the time the object is in flight. Matt throws a stone straight down and 1.75 seconds later the rock has a speed of 88 ft/s. With what initial speed did the rock leave Matt's hand? ----- 60= _____ ft/s

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22Y-61. SPHERE</p> <div style="text-align: center;">  <p style="margin-left: 100px;">Diameter = ?</p> <p style="margin-left: 100px;">Volume = 0.00328</p> </div> <p>22Y-61= _____</p> | <p>22Y-62. CUBE</p> <div style="text-align: center;">  <p style="margin-left: 100px;">Shaded Area = 73.9</p> <p style="margin-left: 100px;">Volume = ?</p> </div> <p>22Y-62= _____</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22Y-63. $\frac{22! + 24!}{9!}$ ----- 63= _____

22Y-64. $(33.1 - \pi)e^{0.546}$ ----- 64= _____

22Y-65. $(\text{deg}) (1.89 + 0.498)\sin(569^\circ)$ ----- 65= _____

22Y-66. $(\text{deg}) \tan(25.1^\circ - 26.9^\circ) + 0.00962$ ----- 66= _____

22Y-67. $(\text{deg}) [13.9]\tan(9.13^\circ - 6.4^\circ)$ ----- 67= _____

22Y-68. $(\text{rad}) (24100)\cos(26.4)$ ----- 68= _____

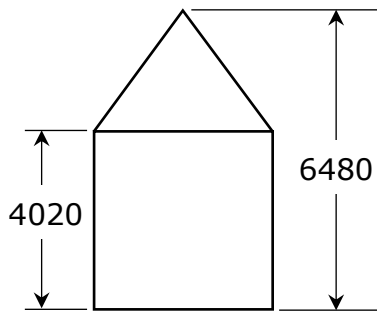
22Y-69. $(\text{rad}) \cos[(0.407 - 0.681)(9.28)]$ ----- 69= _____

22Y-70. $(241 - 156)e^{\pi - 0.383}$ ----- 70= _____

22Y-71. The sum of the first 25 whole numbers is divided by pi.
 What is the result?----- 71= _____

22Y-72. A number squared added to three times itself is equal to
 28. What is that number if it is a positive number? ----- 72= _____

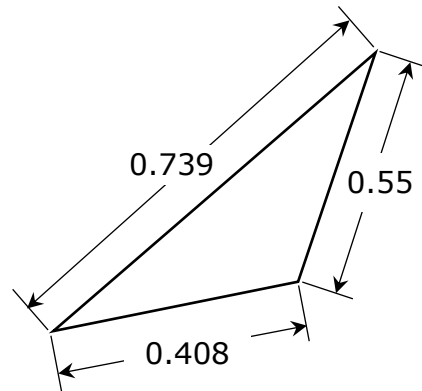
22Y-73.
SQUARE AND ISOCELES TRIANGLE



Total Area = ?

22Y-73= _____

22Y-74.
SCALENE TRIANGLE



Semi-Perimeter = ?

22Y-74= _____

22Y-75. $\ln\left[\frac{25.8 + 50.7 + 47.8}{231 + 449 - 356}\right]$ ----- 75= _____

22Y-76. $\frac{28.6 + \sqrt{(11.6)(43.4) + (\pi)(35.2)}}{\sqrt{\sqrt{0.0754 + 0.0843}}}$ ----- 76= _____

22Y-77. $(4450)_{10}^{(0.141)(4.9)}$ ----- 77= _____

22Y-78. $(61)^\pi(2.88)^2(109 - 99.9)^5$ ----- 78= _____

22Y-79. $1 + 3 + 5 + \dots + 853$ ----- 79= _____

22Y-80. $1 + (0.17) + \frac{(0.17)^2}{2} + \frac{(0.17)^3}{6} + \frac{(0.17)^4}{24}$ ----- 80= _____

2022 UIL MS Calculator Test B Answer Key

| | | | | | |
|--------|----------------------------------|--------|---------------------------------------|--------|--------------------------------------|
| 22Y-1 | = 740 = 7.40×10^2 | 22Y-14 | = 26100 = 2.61×10^4 | 22Y-27 | = -4670 = -4.67×10^3 |
| 22Y-2 | = -3.00 = -3.00×10^0 | 22Y-15 | = -1150 = -1.15×10^3 | 22Y-28 | = 0.00587 = 5.87×10^{-3} |
| 22Y-3 | = -5.60 = -5.60×10^0 | 22Y-16 | = 1.00×10^8 | 22Y-29 | = -1.15×10^{-11} |
| 22Y-4 | = 9.86 = 9.86×10^0 | 22Y-17 | = 0.152 = 1.52×10^{-1} | 22Y-30 | = 9.93×10^{-14} |
| 22Y-5 | = -4080 = -4.08×10^3 | 22Y-18 | = 0.108 = 1.08×10^{-1} | 22Y-31 | = 3.00×10^8 |
| 22Y-6 | = 15.5 = 1.55×10^1 | 22Y-19 | = 15400 = 1.54×10^4 | 22Y-32 | = 18.3 = 1.83×10^1 |
| 22Y-7 | = -6.36 = -6.36×10^0 | 22Y-20 | = 0.000112 = 1.12×10^{-4} | 22Y-33 | = -19.2 = -1.92×10^1 |
| 22Y-8 | = -5.21 = -5.21×10^0 | 22Y-21 | = -1.83 = -1.83×10^0 | 22Y-34 | = 0.00159 = 1.59×10^{-3} |
| 22Y-9 | = 9.19×10^6 | 22Y-22 | = 0.0207 = 2.07×10^{-2} | 22Y-35 | = 7 Integer Answer |
| 22Y-10 | = 4.73×10^9 | 22Y-23 | = 4.64 = 4.64×10^0 | 22Y-36 | = 11.2 = 1.12×10^1 |
| 22Y-11 | = 15200 = 1.52×10^4 | 22Y-24 | = 182 Integer Answer | 22Y-37 | = 29.2 = 2.92×10^1 |
| 22Y-12 | = 852.27 Dollar Answer | 22Y-25 | = 23.4 = 2.34×10^1 | 22Y-38 | = 75.2 = 7.52×10^1 |
| 22Y-13 | = 672 Integer Answer | 22Y-26 | = 4948.81 Dollar Answer | | |

2022 UIL MS Calculator Test B Answer Key

$$22Y-39 = 1.58 \times 10^8$$

$$22Y-40 = 189$$

$$= 1.89 \times 10^2$$

$$22Y-41 = 0.140$$

$$= 1.40 \times 10^{-1}$$

$$22Y-42 = 0.417$$

$$= 4.17 \times 10^{-1}$$

$$22Y-43 = -9.66$$

$$= -9.66 \times 10^0$$

$$22Y-44 = 2.90 \times 10^{10}$$

$$22Y-45 = 1.06$$

$$= 1.06 \times 10^0$$

$$22Y-46 = 0.0200$$

$$= 2.00 \times 10^{-2}$$

$$22Y-47 = 20.7$$

$$= 2.07 \times 10^1$$

$$22Y-48 = 5600$$

$$= 5.60 \times 10^3$$

$$22Y-49 = 0.0483$$

$$= 4.83 \times 10^{-2}$$

$$22Y-50 = 2.40 \times 10^{24}$$

$$22Y-51 = -0.0173$$

$$= -1.73 \times 10^{-2}$$

$$22Y-52 = 3.79 \times 10^6$$

$$22Y-53 = 2.68 \times 10^7$$

$$22Y-54 = 2.18$$

$$= 2.18 \times 10^0$$

$$22Y-55 = -2490$$

$$= -2.49 \times 10^3$$

$$22Y-56 = -623000$$

$$= -6.23 \times 10^5$$

$$22Y-57 = 4.81$$

$$= 4.81 \times 10^0$$

$$22Y-58 = 205$$

$$= 2.05 \times 10^2$$

$$22Y-59 = 85.0$$

$$= 8.50 \times 10^1$$

$$22Y-60 = 31.7$$

$$= 3.17 \times 10^1$$

$$22Y-61 = 0.184$$

$$= 1.84 \times 10^{-1}$$

$$22Y-62 = 635$$

$$= 6.35 \times 10^2$$

$$22Y-63 = 1.71 \times 10^{18}$$

$$22Y-64 = 51.7$$

$$= 5.17 \times 10^1$$

$$22Y-65 = -1.16$$

$$= -1.16 \times 10^0$$

$$22Y-66 = -0.0218$$

$$= -2.18 \times 10^{-2}$$

$$22Y-67 = 0.663$$

$$= 6.63 \times 10^{-1}$$

$$22Y-68 = 7200$$

$$= 7.20 \times 10^3$$

$$22Y-69 = -0.826$$

$$= -8.26 \times 10^{-1}$$

$$22Y-70 = 1340$$

$$= 1.34 \times 10^3$$

$$22Y-71 = 103$$

$$= 1.03 \times 10^2$$

$$22Y-72 = 4.00$$

$$= 4.00 \times 10^0$$

$$22Y-73 = 2.11 \times 10^7$$

$$22Y-74 = 0.894$$

$$= 8.94 \times 10^{-1}$$

$$22Y-75 = -0.958$$

$$= -9.58 \times 10^{-1}$$

$$22Y-76 = 256$$

$$= 2.56 \times 10^2$$

$$22Y-77 = 21800$$

$$= 2.18 \times 10^4$$

$$22Y-78 = 2.10 \times 10^{11}$$

$$22Y-79 = 182000$$

$$= 1.82 \times 10^5$$

$$22Y-80 = 1.19$$

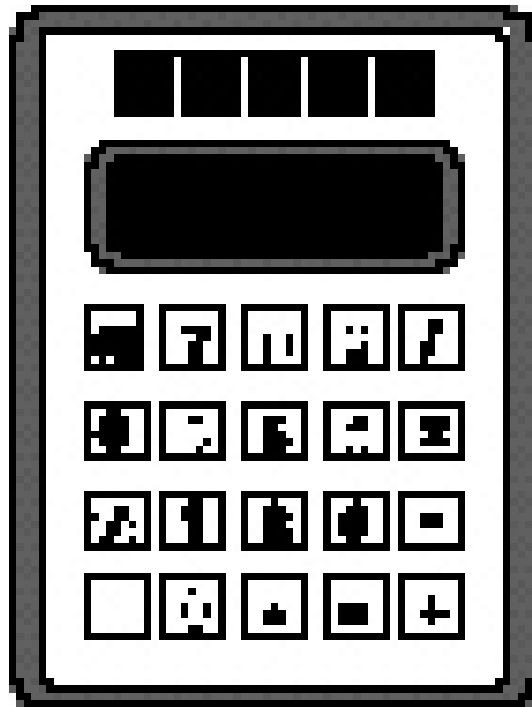
$$= 1.19 \times 10^0$$

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test C

22Z-1. $3650 - 1760$ ----- 1= _____

22Z-2. $27 + 30 - 24$ ----- 2= _____

22Z-3. $512 + 1210 - 770$ ----- 3= _____

22Z-4. $12 - 10 - 10 + \pi$ ----- 4= _____

22Z-5. $66 + 74 - 209 - 124$ ----- 5= _____

22Z-6. $229 + 270 - 154 - 315 - 339$ ----- 6= _____

22Z-7. $-1.32 + 1.44 - \pi + 1.56 + 1.15$ ----- 7= _____

22Z-8. $(-3.63 + 3.64 - 1.76) - (2.42 + 3.94)$ ----- 8= _____

22Z-9. $89.5 \times 50.9 \times 178$ ----- 9= _____

22Z-10. $1100 \times 176 \times 199 \times 1390$ ----- 10= _____

22Z-11. What is the product of 34.7 and -14200?----- 11= _____

22Z-12. A one mile stretch of highway, Interstate 35 (I35), cost 7.8 million dollars. How much did a one-foot length of the highway cost? - 12=\$_____

22Z-13. A fortnight equals two weeks. How many hours are there in three fortnights? ----- 13= _____ hrs (integer)

22Z-14. $(429)[207 \times 525/512]$ ----- 14= _____

22Z-15. $-120/[92 \times 27 \times 27]$ ----- 15= _____

22Z-16. $\{(80)(26 - 111)(119)\} - 7.27 \times 10^5$ ----- 16= _____

22Z-17. $\left[\frac{234}{131}\right] [(101/94) + 0.208]$ ----- 17= _____

22Z-18. $\left[\frac{(1490/656) - (2290/2700)}{0.36/(0.735)}\right]$ ----- 18= _____

22Z-19. $\left[\frac{426/318}{463/341}\right] \{13.8 + 18.4 - 17.4\}$ ----- 19= _____

22Z-20. $\frac{175}{(285 - 56)} - \frac{(82 - 228)}{87}$ ----- 20= _____

22Z-21. $\frac{(\pi)(7/14)(26/9)}{213}$ ----- 21= _____

22Z-22. $\frac{(\pi)(84/146)(64/88)}{(98/36)}$ ----- 22= _____

22Z-23. $\left[\frac{2360 + 5240}{5600 - 5210}\right] \left[\frac{5980}{3280}\right]$ ----- 23= _____

22Z-24. At a garage sale Maria was promised she would get at least 55 golf balls in a sack. If the average golf ball weighs 1.62 ounces (oz) (dry measure), and the weight of the sack is negligible, at least how much should the sack of golf balls weigh? ----- 24= _____ oz (integer)

22Z-25. Dan's new truck is supposed to get 19.5 miles per gallon of fuel used. If Dan drives 495 miles, how many gallons of fuel does his truck use? ----- 25= _____ gal

22Z-26. The 2020-21 adopted property tax rate for the Azle school district was \$1.2474 per \$100 property evaluation. If a new home and land it is on in the Azle ISD evaluated at \$398,750, how much did the school district taxes for the property amount to? ----- 26=\$ _____

22Z-27. $\frac{(3.16 - 21.7)(0.03 + 0.00561)}{(3.22 \times 10^{10})}$ ----- 27= _____

22Z-28. $\frac{(2.81 \times 10^{10}) + (1.22 \times 10^{10})}{(-0.0639)(0.0462) - 0.00152}$ ----- 28= _____

22Z-29. $[6250 - (7720 + 6020)] + [(0.466)(1610 - 3260)]$ ----- 29= _____

22Z-30. $\frac{(10.7 + 31.6)}{(9.84 \times 10^{10})}$ ----- 30= _____

22Z-31. $(0.0159) \left[\frac{0.0194}{(2.76 \times 10^8)} \right]$ ----- 31= _____

22Z-32. $\frac{1}{\pi} + \frac{1}{(\pi)(21.1 - 27)}$ ----- 32= _____

22Z-33. $\frac{1}{531} - \frac{1}{(129 + 336)}$ ----- 33= _____

22Z-34. $\left[\frac{1/163}{1/276} \right] + [0.251]$ ----- 34= _____

22Z-35. If fifty thousand is divided by 17, what is the remainder? -- 35= _____ integer

22Z-36. One day Lisa, who is 5' 9" tall cast a shadow of length 21.4 ft. A nearby tree cast a shadow of length 63 ft. How tall is the tree? ----- 36= _____ ft

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22Z-37. RECTANGLE</p> <div style="text-align: center; margin: 20px 0;"> </div> <p style="text-align: center;">22Z-37= _____</p> | <p>22Z-38. SCALENE TRIANGLE</p> <div style="text-align: center; margin: 20px 0;"> </div> <p style="text-align: center;">22Z-38= _____</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22Z-39. $(89.4 + 615)^2(30.4 + 5.68)^2$ ----- 39= _____

22Z-40. $(963 + 1460 + 632)^2(3.57 + 2.58)^2$ ----- 40= _____

22Z-41. $\left[\frac{583}{761}\right](32.7 + 32.4)^3$ ----- 41= _____

22Z-42. $(1/\pi)\sqrt[4]{\frac{1.25 + 0.365}{0.0114 - 0.0107}}$ ----- 42= _____

22Z-43. $(1/(0.00233))(2.06 \times 10^5 - 6.02 \times 10^5)^3$ ----- 43= _____

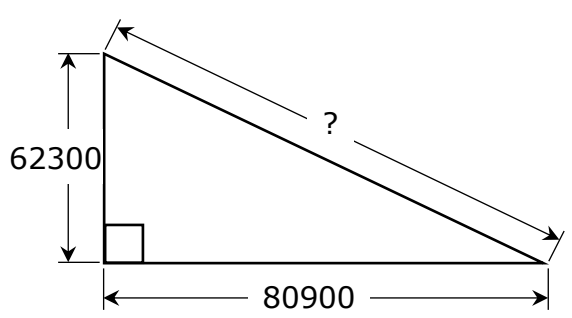
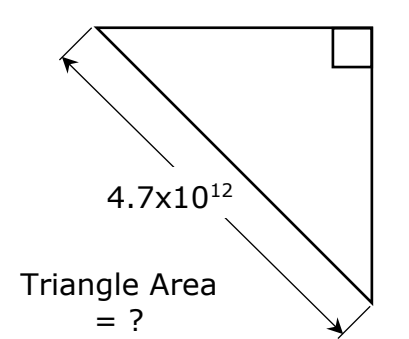
22Z-44. $(87.2)\sqrt{3840 + 4900 + 2380}$ ----- 44= _____

22Z-45. $\frac{1}{\sqrt{2360 + 5930 + 2410}} + \left(\frac{1}{\sqrt{7.77}}\right)^4$ ----- 45= _____

22Z-46. $\sqrt[3]{1.23 - 818/843} + 1/\sqrt{13 + 18.7}$ ----- 46= _____

22Z-47. Amanda leaned the 24-ft long ladder against the wall of her business and the ladder stuck out 2 feet beyond the top edge of the wall. If the bottom of the ladder was 7 ft from the bottom of the wall how tall is the wall of Amanda's business? ----- 47= _____ ft

22Z-48. If the radius of the Moon is 1079.4 miles what is the straight line distance from the equator to the Lunar South Pole? ----- 48= _____ mi

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22Z-49. RIGHT TRIANGLE</p>  <p style="text-align: center;">22Z-49= _____</p> | <p>22Z-50. ISOSCELES RIGHT TRIANGLE</p>  <p style="text-align: center;">Triangle Area = ?</p> <p style="text-align: center;">22Z-50= _____</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22Z-51. $\frac{(8920 + 6820 - 8300)^3}{\sqrt{0.656 + 0.223 + 0.103}}$ ----- 51= _____

22Z-52. $\frac{\sqrt{6.29 + \pi + 3.92}}{(2.13 - 0.444 + 1.58)^4}$ ----- 52= _____

22Z-53. $\sqrt{\frac{2.87 \times 10^{14}}{(20.8)(10500)} + \frac{(8680 - 8050)}{(0.00188 + 0.011)}}$ ----- 53= _____

22Z-54. $\sqrt{\frac{1/(460 - 246)}{(7.68)(19.8 + 71)^6}}$ ----- 54= _____

22Z-55. $\sqrt{\frac{(3.95 \times 10^5)(6.14 \times 10^5)}{(33400)(4300)}} - 31.4 + 39.4$ ----- 55= _____

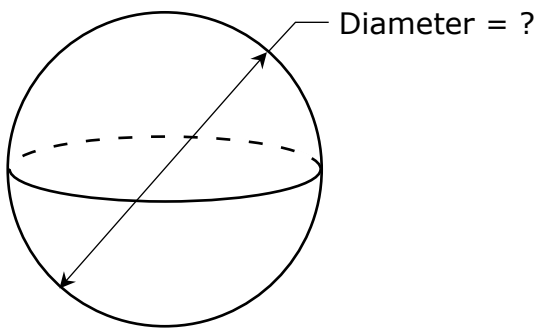
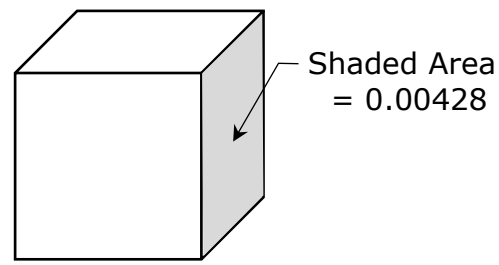
22Z-56. $10400 + \sqrt{(25900)(35700)} - (39700 + 35300)$ ----- 56= _____

22Z-57. $\sqrt{\frac{(1210)(166)}{(9.58) + (6.12)}} - 444$ ----- 57= _____

22Z-58. $\sqrt{\frac{(1190)(13)}{(71.6) + (86.4)}} + 1/(1.58)^{-5}$ ----- 58= _____

22Z-59. Andy can mow his lawn in 50 minutes using the riding lawnmower and he can mow the same lawn in 2.75 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 30 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22Z-60. The formula for finding the final speed of an object thrown straight down after a certain amount of time (disregarding any air friction) is $v_F = v_I + gt$; where v_F is the final speed, v_I is the initial speed, g is the acceleration due to gravity, 32.174 ft/sec^2 , and t is the time the object is in flight. Matt throws a stone straight down and 1.75 seconds later the rock has a speed of 75 ft/s. With what initial speed did the rock leave Matt's hand? ----- 60= _____ ft/s

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22Z-61.</p> <p style="text-align: center;">SPHERE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Volume = 849000</p> <p>22Z-61= _____</p> | <p>22Z-62.</p> <p style="text-align: center;">CUBE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Volume = ?</p> <p>22Z-62= _____</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

22Z-63. $\frac{27!/9!}{6! + 4!}$ ----- 63= _____

22Z-64. $(28900 - 16300)^{-4}(2.04 \times 10^8)$ ----- 64= _____

22Z-65. (deg) $(27.3 - 34.5)\sin(8.7^\circ)$ ----- 65= _____

22Z-66. (deg) $[6.85]\tan(18.8^\circ - 8.79^\circ)$ ----- 66= _____

22Z-67. (deg) $\cos(2.69^\circ - 2.16^\circ) + 0.775$ ----- 67= _____

22Z-68. (deg) $\frac{\sin(1.39^\circ) - \tan(1.39^\circ)}{\sin(1.39^\circ)}$ ----- 68= _____

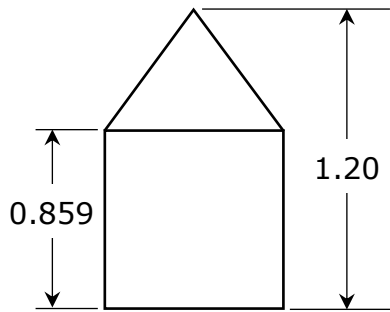
22Z-69. (rad) $\tan[(3.51 - 2.85)(17.8)]$ ----- 69= _____

22Z-70. $(221 - 186)e^{\pi - 0.396}$ ----- 70= _____

22Z-71. The sum of the first 30 whole numbers is divided by pi.
 What is the result?----- 71= _____

22Z-72. A number squared added to six times itself is equal to
 28. What is that number if it is a positive number? ----- 72= _____

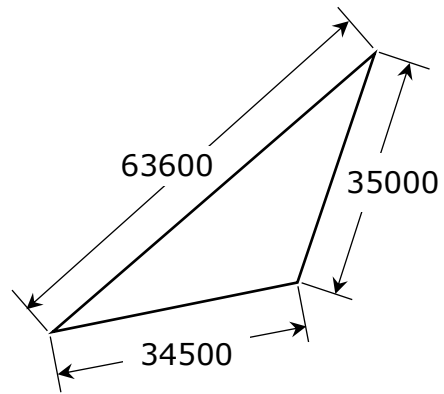
22Z-73.
 SQUARE AND ISOSCELES TRIANGLE



Total Area = ?

22Z-73= _____

22Z-74.
 SCALENE TRIANGLE



Semi-Perimeter = ?

22Z-74= _____

22Z-75. $\frac{\text{Log}(1260 + 1140)}{1680 - 1270}$ ----- 75= _____

22Z-76. $\text{Ln}\left[\frac{31.1 + 133 + 28.7}{201 + 547 - 363}\right]$ ----- 76= _____

22Z-77. $\frac{23000 - 17400}{\text{Log}(51.4 + 24)}$ ----- 77= _____

22Z-78. $\text{Ln}\left[\frac{84.6 + 69.4 + 223}{177 - 67.5 - 73.9}\right]$ ----- 78= _____

22Z-79. $1 + 3 + 5 + \dots + 671$ ----- 79= _____

22Z-80. $(0.699) - \frac{(0.699)^2}{2} + \frac{(0.699)^3}{3} - \frac{(0.699)^4}{4}$ ----- 80= _____

2022 UIL MS Calculator Test C Answer Key

| | | | | | |
|--------|--------------------------------------|--------|----------------------------------------|--------|-----------------------------------------|
| 22Z-1 | = 1890 = 1.89×10^3 | 22Z-14 | = 91100 = 9.11×10^4 | 22Z-27 | = -2.05×10^{-11} |
| 22Z-2 | = 33.0 = 3.30×10^1 | 22Z-15 | = -0.00179 = -1.79×10^{-3} | 22Z-28 | = -9.01×10^{12} |
| 22Z-3 | = 952 = 9.52×10^2 | 22Z-16 | = -1.54×10^6 | 22Z-29 | = -8260 = -8.26×10^3 |
| 22Z-4 | = -4.86 = -4.86×10^0 | 22Z-17 | = 2.29 = 2.29×10^0 | 22Z-30 | = 4.30×10^{-10} |
| 22Z-5 | = -193 = -1.93×10^2 | 22Z-18 | = 2.91 = 2.91×10^0 | 22Z-32 | = 0.264 = 2.64×10^{-1} |
| 22Z-6 | = -309 = -3.09×10^2 | 22Z-19 | = 14.6 = 1.46×10^1 | 22Z-33 | = -0.000267 = -2.67×10^{-4} |
| 22Z-7 | = -0.312 = -3.12×10^{-1} | 22Z-20 | = 2.44 = 2.44×10^0 | 22Z-34 | = 1.94 = 1.94×10^0 |
| 22Z-8 | = -8.11 = -8.11×10^0 | 22Z-21 | = 0.0213 = 2.13×10^{-2} | 22Z-35 | = 3 Integer Answer |
| 22Z-9 | = 811000 = 8.11×10^5 | 22Z-22 | = 0.483 = 4.83×10^{-1} | 22Z-36 | = 16.9 = 1.69×10^1 |
| 22Z-10 | = 5.36×10^{10} | 22Z-23 | = 35.5 = 3.55×10^1 | 22Z-37 | = 82.2 = 8.22×10^1 |
| 22Z-11 | = -493000 = -4.93×10^5 | 22Z-24 | = 90 Integer Answer | 22Z-38 | = 71.9 = 7.19×10^1 |
| 22Z-12 | = 1477.27 Dollar Answer | 22Z-25 | = 25.4 = 2.54×10^1 | | |
| 22Z-13 | = 1008 Integer Answer | 22Z-26 | = 4974.01 Dollar Answer | | |

2022 UIL MS Calculator Test C Answer Key

$$22Z-39 = 6.46 \times 10^8$$

$$22Z-40 = 3.53 \times 10^8$$

$$22Z-41 = 211000$$

$$= 2.11 \times 10^5$$

$$22Z-42 = 2.21$$

$$= 2.21 \times 10^0$$

$$22Z-43 = -2.67 \times 10^{19}$$

$$22Z-44 = 9200$$

$$= 9.20 \times 10^3$$

$$22Z-45 = 0.0262$$

$$= 2.62 \times 10^{-2}$$

$$22Z-46 = 0.816$$

$$= 8.16 \times 10^{-1}$$

$$22Z-47 = 20.9$$

$$= 2.09 \times 10^1$$

$$22Z-48 = 1530$$

$$= 1.53 \times 10^3$$

$$22Z-49 = 102000$$

$$= 1.02 \times 10^5$$

$$22Z-50 = 5.52 \times 10^{24}$$

$$22Z-51 = 4.16 \times 10^{11}$$

$$22Z-52 = 0.0321$$

$$= 3.21 \times 10^{-2}$$

$$22Z-53 = 85200$$

$$= 8.52 \times 10^4$$

$$22Z-54 = 3.29 \times 10^{-8}$$

$$22Z-55 = 49.1$$

$$= 4.91 \times 10^1$$

$$22Z-56 = -34200$$

$$= -3.42 \times 10^4$$

$$22Z-57 = -331$$

$$= -3.31 \times 10^2$$

$$22Z-58 = 19.7$$

$$= 1.97 \times 10^1$$

$$22Z-59 = 96.0$$

$$= 9.60 \times 10^1$$

$$22Z-60 = 18.7$$

$$= 1.87 \times 10^1$$

$$22Z-61 = 117$$

$$= 1.17 \times 10^2$$

$$22Z-62 = 0.000280$$

$$= 2.80 \times 10^{-4}$$

$$22Z-63 = 4.03 \times 10^{19}$$

$$22Z-64 = 8.09 \times 10^{-9}$$

$$22Z-65 = -1.09$$

$$= -1.09 \times 10^0$$

$$22Z-66 = 1.21$$

$$= 1.21 \times 10^0$$

$$22Z-67 = 1.77$$

$$= 1.77 \times 10^0$$

$$22Z-68 = -0.000294$$

$$= -2.94 \times 10^{-4}$$

$$22Z-69 = -1.07$$

$$= -1.07 \times 10^0$$

$$22Z-70 = 545$$

$$= 5.45 \times 10^2$$

$$22Z-71 = 148$$

$$= 1.48 \times 10^2$$

$$22Z-72 = 3.08$$

$$= 3.08 \times 10^0$$

$$22Z-73 = 0.884$$

$$= 8.84 \times 10^{-1}$$

$$22Z-74 = 66600$$

$$= 6.66 \times 10^4$$

$$22Z-75 = 0.00824$$

$$= 8.24 \times 10^{-3}$$

$$22Z-76 = -0.692$$

$$= -6.92 \times 10^{-1}$$

$$22Z-77 = 2980$$

$$= 2.98 \times 10^3$$

$$22Z-78 = 2.36$$

$$= 2.36 \times 10^0$$

$$22Z-79 = 113000$$

$$= 1.13 \times 10^5$$

$$22Z-80 = 0.509$$

$$= 5.09 \times 10^{-1}$$

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Test/Tiebreaker (#correct)

____ / ____ Initials ____

____ / ____ Initials ____

Papers contending to place:

____ / ____ Initials ____



**University Interscholastic League
A+ Chess Puzzle Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 2 3 4 5 6 7 8

Test (*circle only one answer for each question*)

1. a b c d

2. a b c d

3. a b c d

4. a b c d

5. a b c d

6. a b c d

7. a b c d

8. a b c d

9. a b c d

10. a b c d

11. a b c d

12. a b c d

13. a b c d

14. a b c d

15. a b c d

16. a b c d

17. a b c d

18. a b c d

19. a b c d

20. a b c d

*Questions
#17- 20
only for
Grades 4-8*

Tiebreaker (*circle only one answer for each question*)

1. a b c d

2. a b c d

3. a b c d

4. a b c d

5. a b c d

6. a b c d

7. a b c d

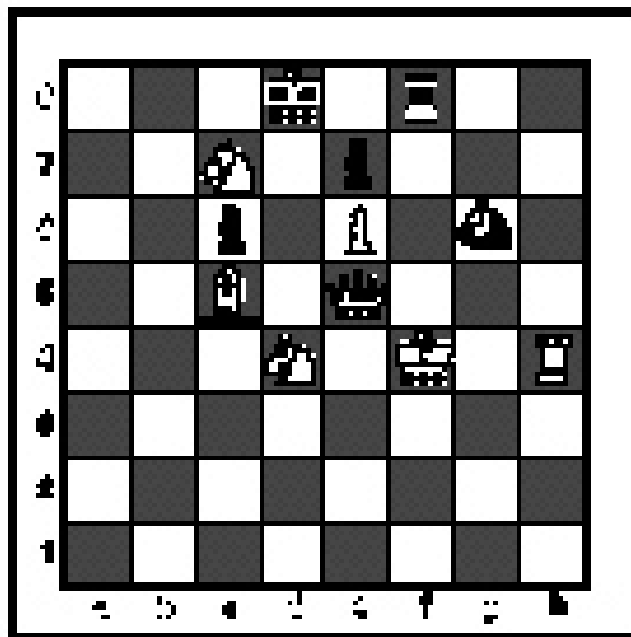
8. a b c d

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 2 & 3

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

- To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.
- Every square on the board has an "address" made up of a letter and a number.

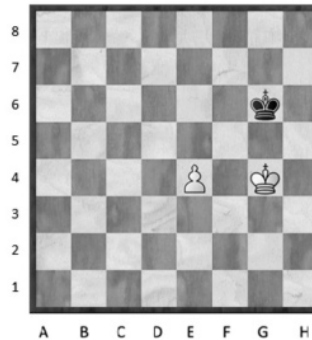


| Piece Names | Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation) |
|-------------|------------------------------------------------------------------------------------------------|
| King | |
| Queen | |
| Rook | |
| Bishop | |
| Knight | |
| Pawn | a-h (We write the file it's on.) |

- To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.
- When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

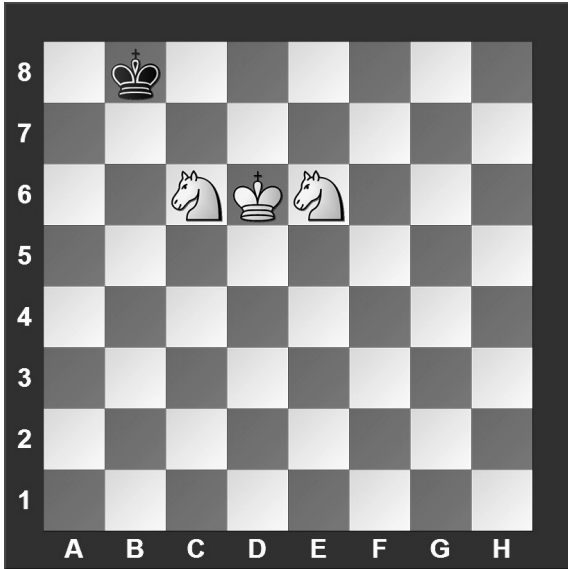


White has just played **e4**.



Black has just played ... **Nf6**.

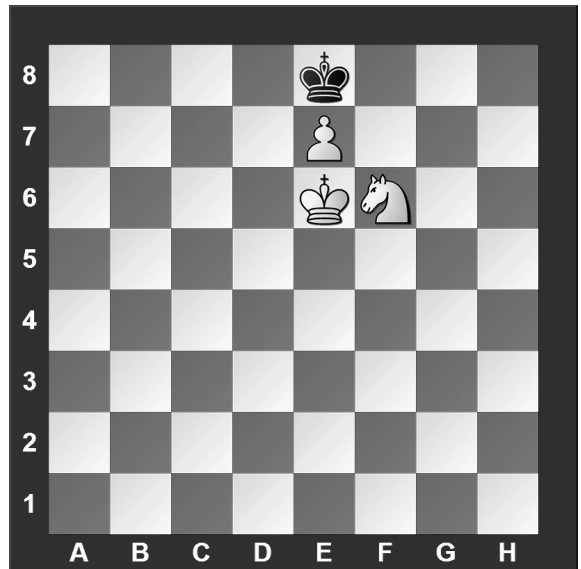
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

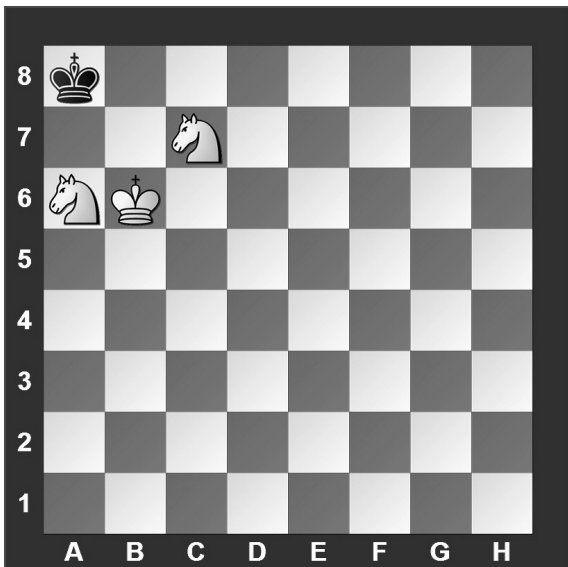
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

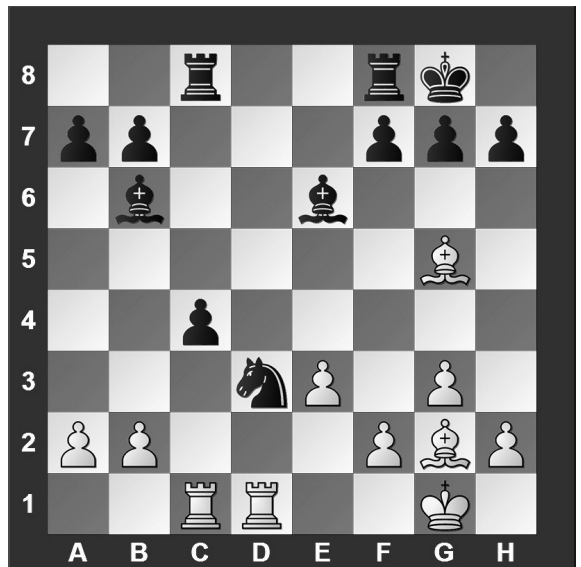
#3. Black to move



What term best describes this situation?

- a) Black is in check.
- b) Black is in stalemate.
- c) Black is in checkmate.
- d) None of the above.

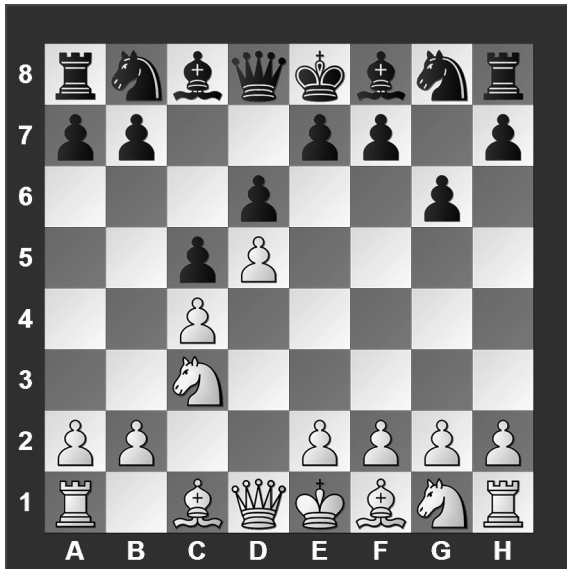
#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

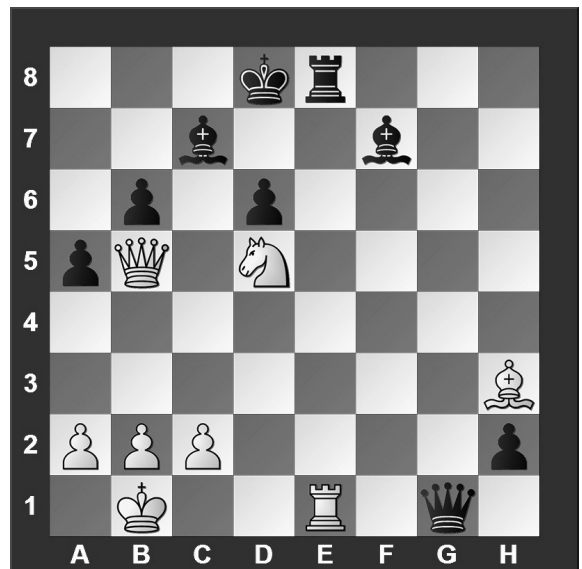
#5. White to move



Black just played c7 to c5. Which pawn can be captured?

- a) Black's c-pawn
- b) Black's d-pawn
- c) Black's f-pawn
- d) White can't capture a pawn.

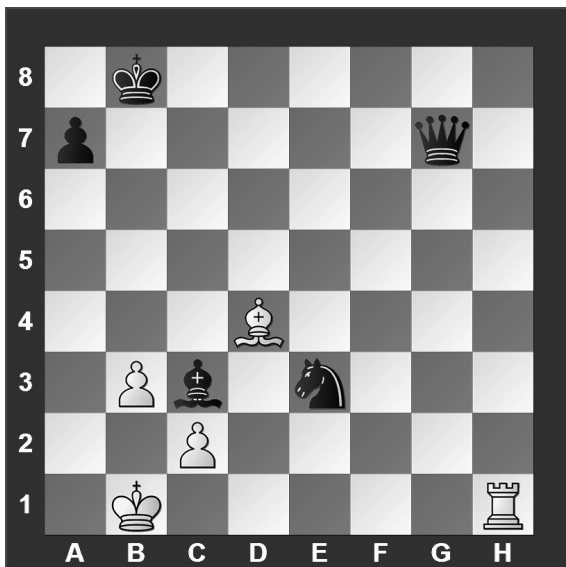
#6. White to move



What is White's best move?

- a) ♖d1
- b) ♖xg1
- c) ♕x e8
- d) ♕d7

#7. White to move



What is White's best move?

- a) To take Black's queen.
- b) To take Black's knight.
- c) To take Black's bishop.
- d) To take Black's pawn.

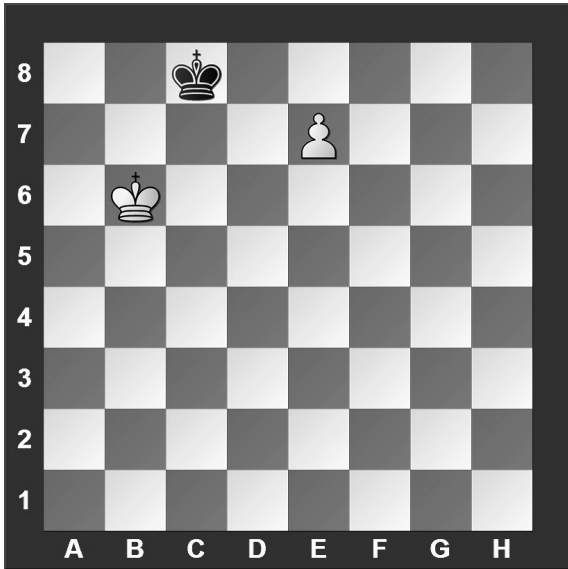
#8. White to move



What is White's best move?

- a) ♕xg7
- b) ♕x e6
- c) ♗xg7
- d) ♗f6

#9. White to move



What piece should White promote to?

- a) Queen
- b) Knight
- c) Bishop
- d) White can't promote to any piece

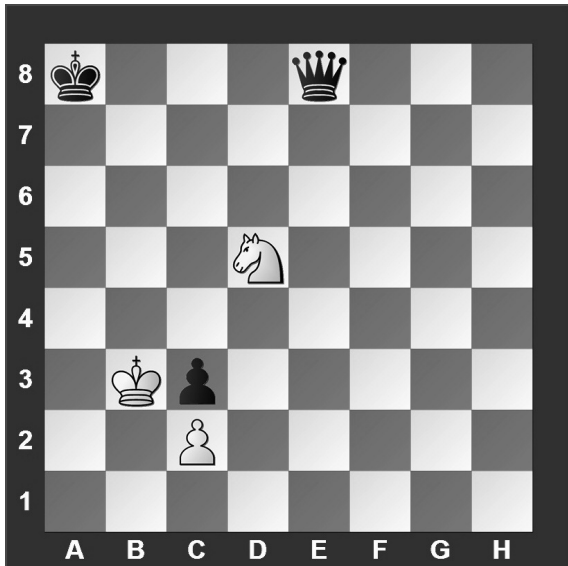
#10. White to move



What is White's best move?

- a) $\text{N} \times \text{e4}$
- b) $\text{Q} \times \text{e4}$
- c) $\text{Q} \times \text{c6}$
- d) $\text{Q} \text{c4}$

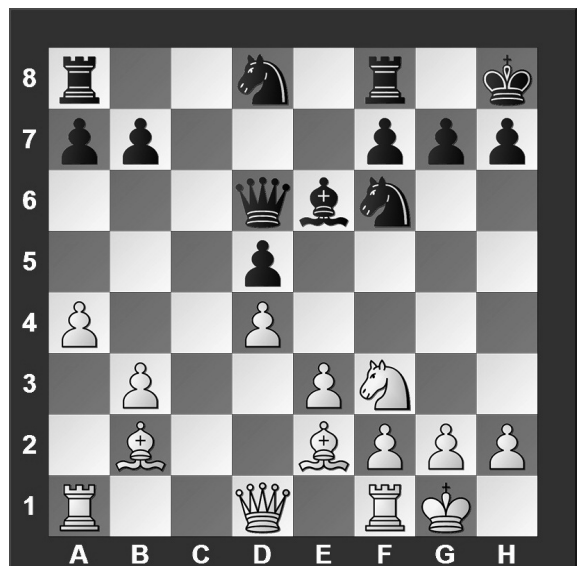
#11. White to move



What is White's best move?

- a) $\text{N} \times \text{c3}$
- b) $\text{N} \text{c7}$
- c) $\text{N} \text{b6}$
- d) $\text{Q} \times \text{c3}$

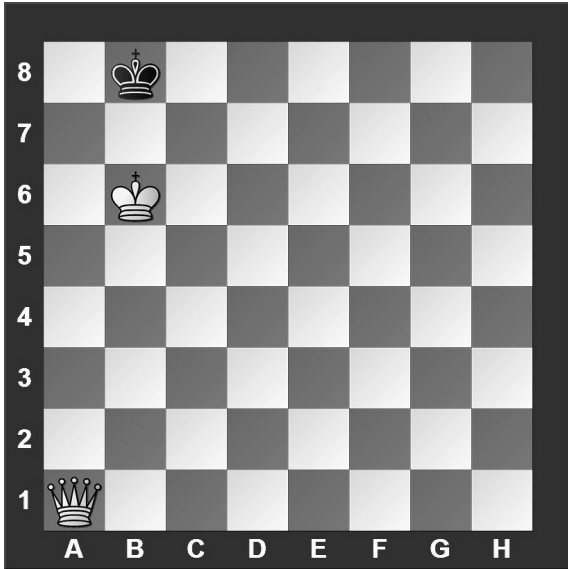
#12. White to move



What is White's best move?

- a) $\text{Q} \text{a3}$
- b) $\text{N} \text{e5}$
- c) $\text{N} \text{g5}$
- d) $\text{Q} \text{c4}$

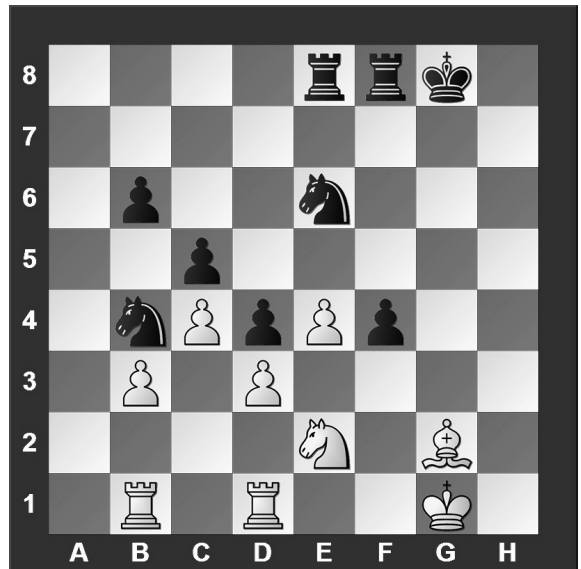
#13. White to move



If White can checkmate Black in one move, what is the right move?

- a) ♔h8
- b) ♔a8
- c) ♔a7
- d) ♔h1

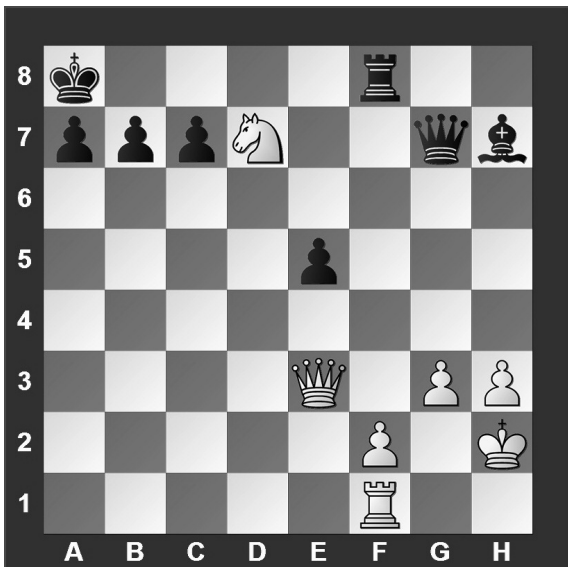
#14. Black to move



What is Black's best move?

- a) ♞x d3
- b) f3
- c) ♖a8
- d) ♔g7

#15. White to move



If White can checkmate Black in two moves, what is the first move?

- a) ♞b6
- b) ♔x e5
- c) ♔c5
- d) ♔x a7

#16. White to move



What is White's best move?

- a) b4
- b) ♖x c5
- c) dxc5
- d) ♔a4



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Invitational — Grades 2 & 3**

ANSWER KEY

Test

- | | |
|------|-------|
| 1. C | 11. B |
| 2. A | 12. A |
| 3. C | 13. A |
| 4. B | 14. B |
| 5. A | 15. D |
| 6. D | 16. B |
| 7. A | |
| 8. A | |
| 9. A | |
| 10.D | |

Tiebreaker

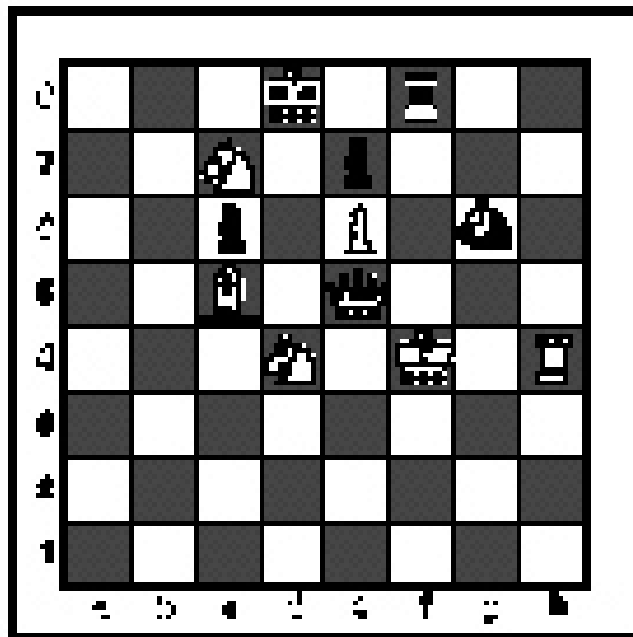
- | | |
|------|------|
| 1. D | 5. A |
| 2. A | 6. D |
| 3. C | 7. D |
| 4. A | 8. C |

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 4 & 5

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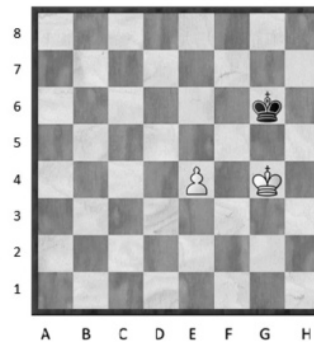


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| Queen |  |
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| Pawn | a-h (We write the file it's on.) |

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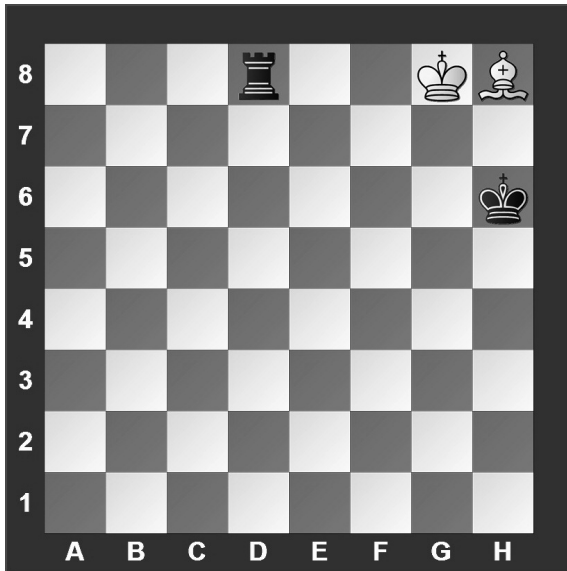


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Black has just played ... **Nf6**.

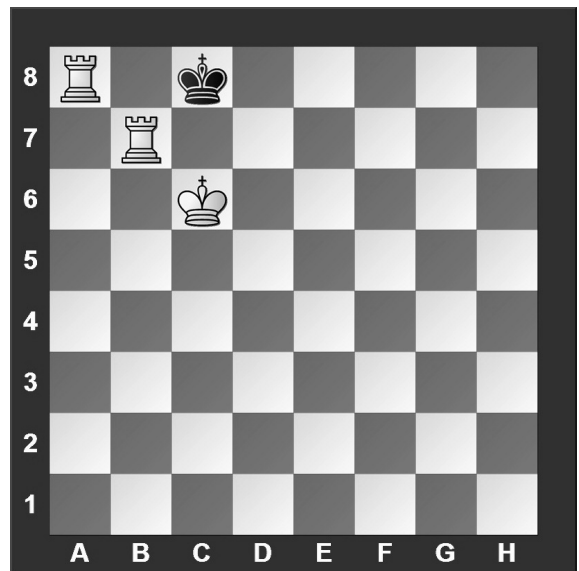
#1. White to move



What term best describes this situation?

- a) White is in check.
- b) White is in stalemate.
- c) White is in checkmate.
- d) None of the above.

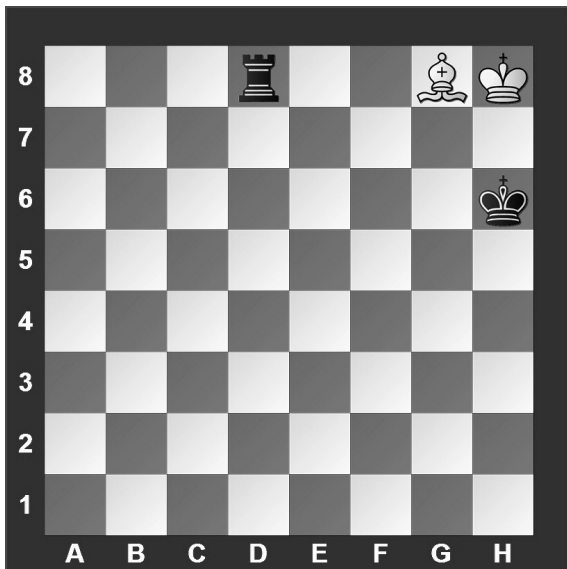
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

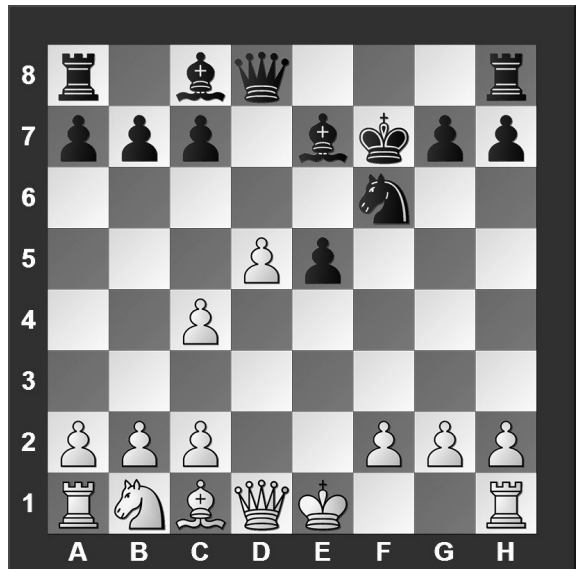
#3 White to move.



What term best describes this situation?

- a) White is in checkmate.
- b) White is in stalemate.
- c) White is in check.
- d) None of the above.

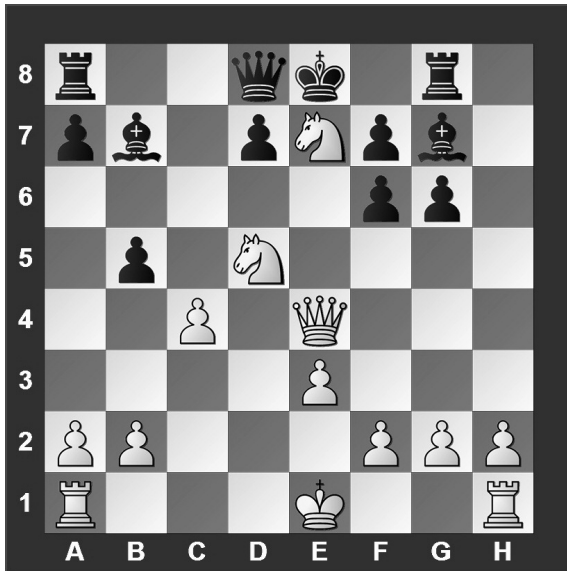
#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

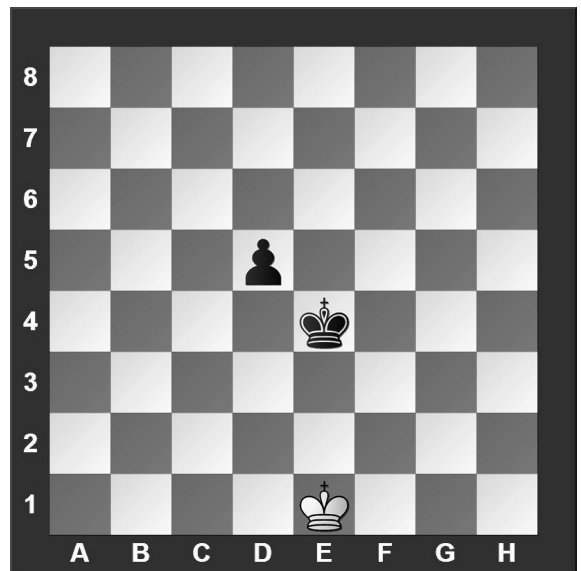
#5. White to move



White can checkmate Black in two moves, what's the first move?

- a) ♖xg8
- b) ♖xf6
- c) ♖xg6
- d) ♔xg6

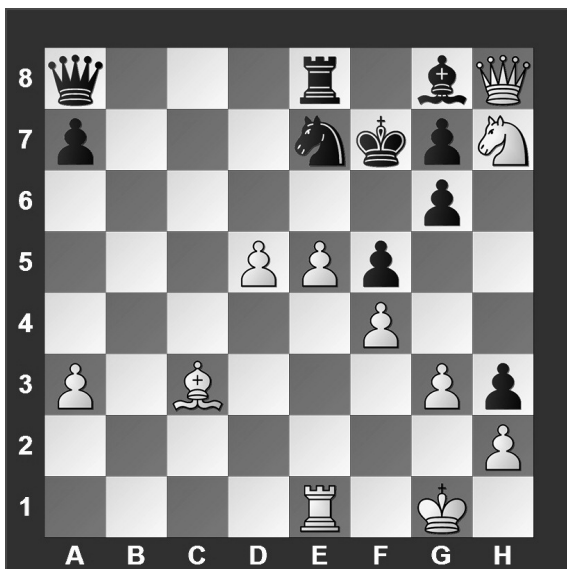
#6. White to move



With the best moves, what is the result of the game?

- a) White wins.
- b) Black wins.
- c) It is a draw.
- d) It is not possible to tell.

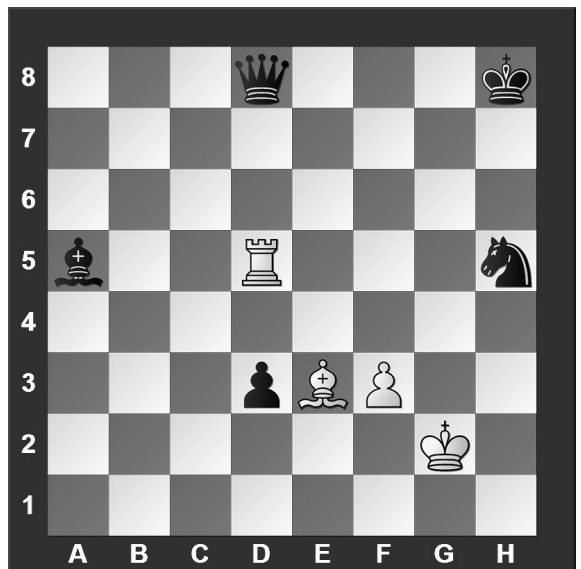
#7. White to move



What is White's best move?

- a) e6
- b) d6
- c) ♔xg7
- d) ♔xg8

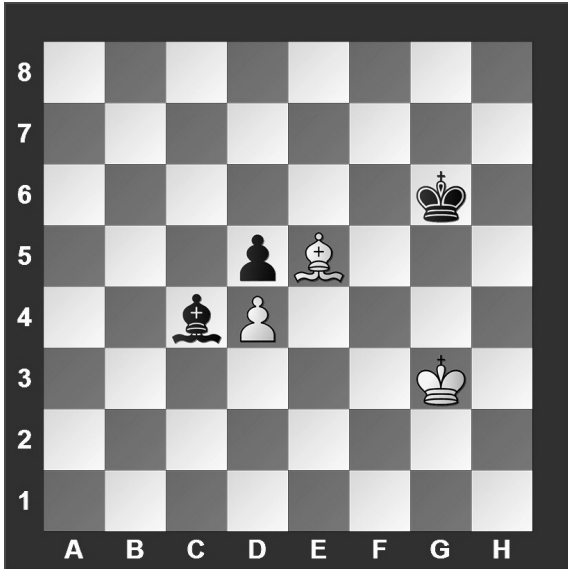
#8. White to move



What is White's best move?

- a) To take Black's queen.
- b) To take Black's knight.
- c) To take Black's pawn.
- d) To take Black's bishop.

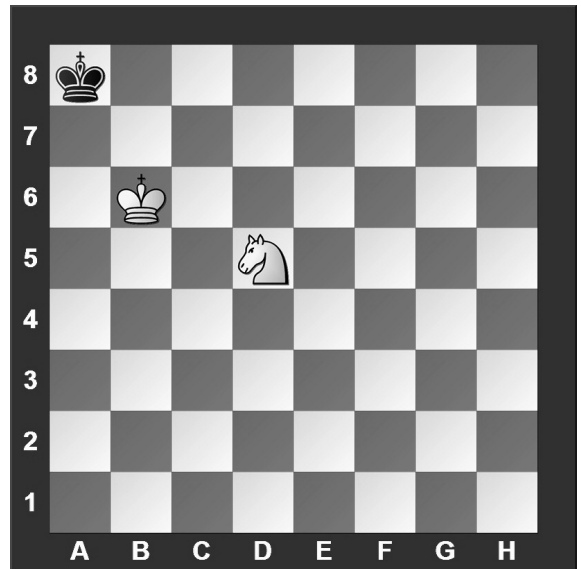
#9. White to move



What is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

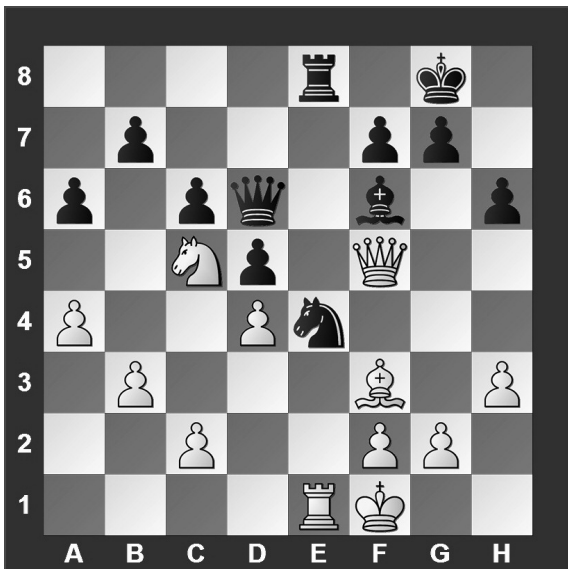
#10. White to move



What is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

#11. White to move



What is White's best move?

- a) ♖×e4
- b) ♖×e4
- c) ♗×e4
- d) ♗×e4

#12. White to move



What is White's best move?

- a) ♖×e5
- b) ♖×f6
- c) ♖×h6
- d) ♖×b8

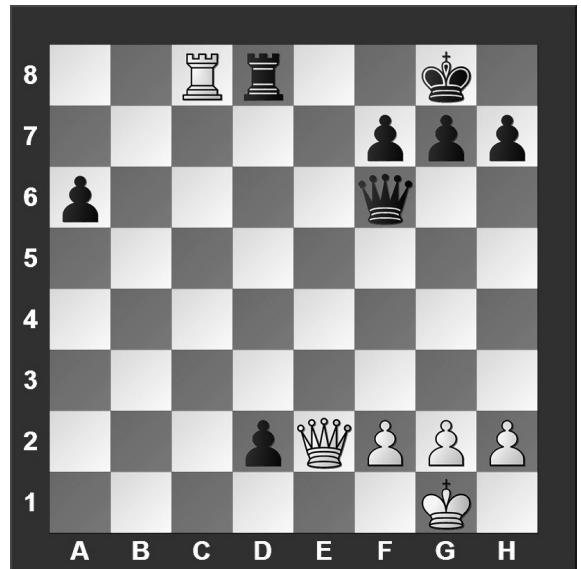
#13. White to move



What is White's best move?

- a) ♔×c4
- b) ♔×c6
- c) ♖d1
- d) b4

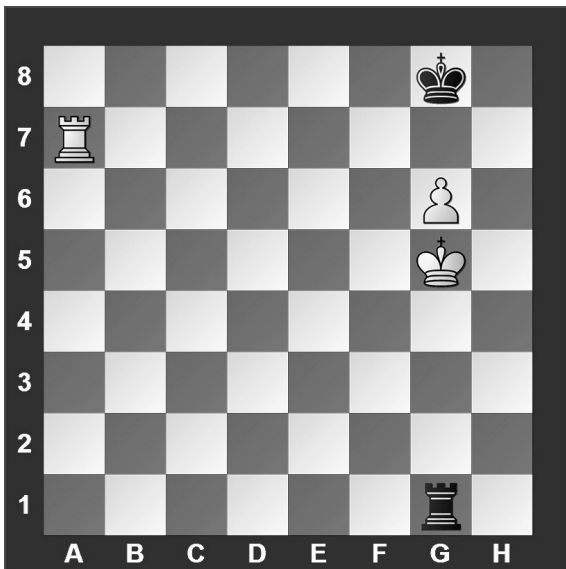
#14. White to move



If White can checkmate Black in two moves, what is the *first* move?

- a) ♔×d2
- b) ♔e8
- c) ♖×d8
- d) ♔×a6

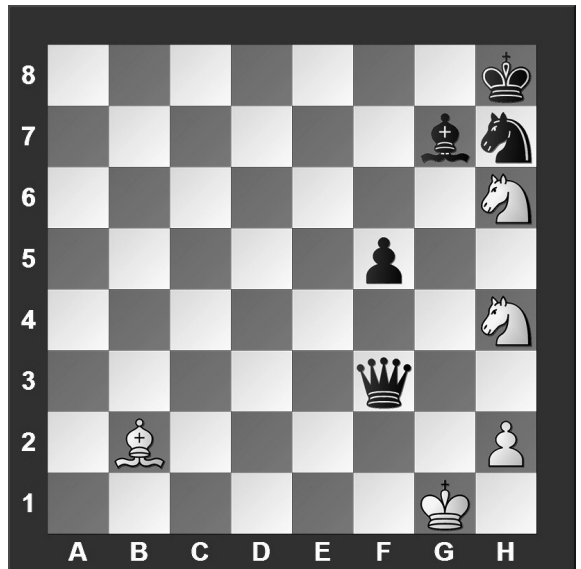
#15. White to move



What is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

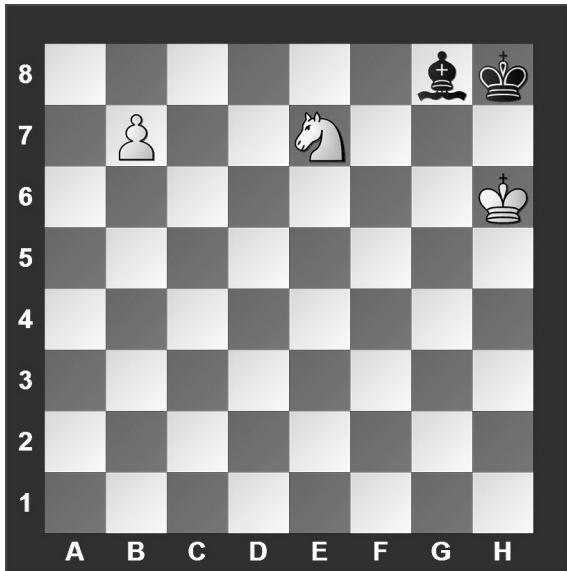
#16. White to move



What is White's best move?

- a) ♔×g7
- b) ♖f7
- c) ♖g6
- d) ♖×f3

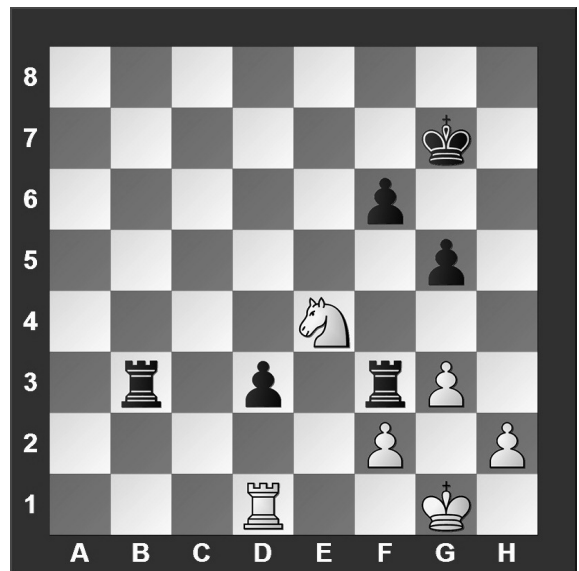
#17. White to move



What piece should White promote to?

- a) Rook.
- b) Queen.
- c) Bishop.
- d) Knight.

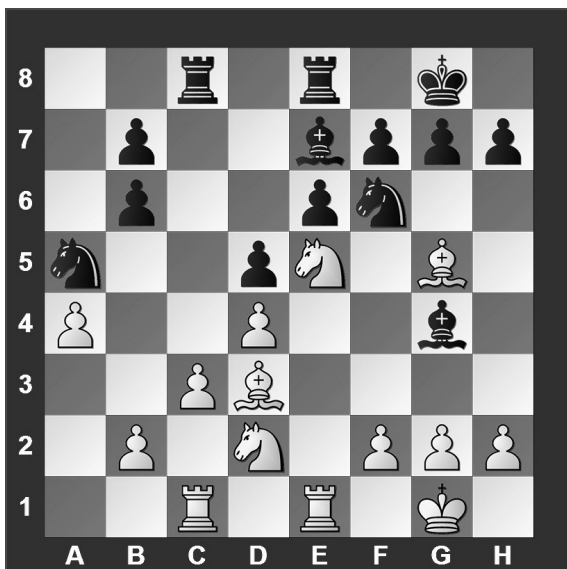
#18. White to move



What is White's best move?

- a) ♖×f6
- b) ♖×g5
- c) ♖d2
- d) ♔g2

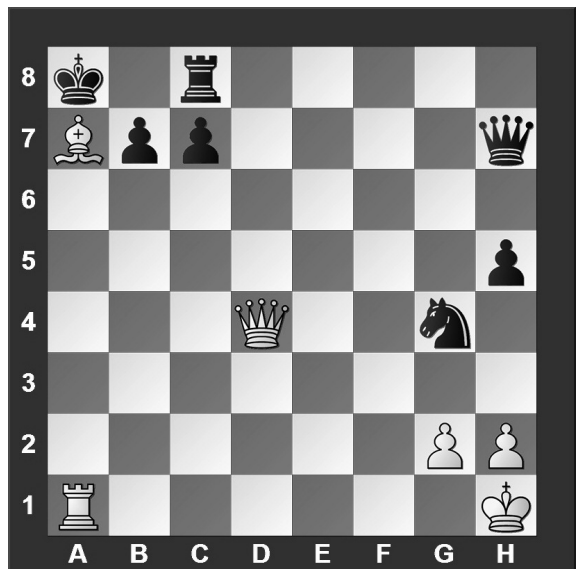
#19. White to move



What is White's best move?

- a) ♖×g4
- b) ♔×h7
- c) ♔×f6
- d) h3

#20. White to move



If White can checkmate Black in two moves, what's the *first* move?

- a) ♔b6
- b) ♔c5
- c) ♔b8
- d) White can't checkmate Black in two moves.



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Invitational — Grades 4 & 5**

ANSWER KEY

Test

- | | |
|-------|-------|
| 1. A | 11. C |
| 2. A | 12. D |
| 3. B | 13. B |
| 4. B | 14. B |
| 5. C | 15. C |
| 6. C | 16. C |
| 7. A | 17. C |
| 8. A | 18. C |
| 9. C | 19. C |
| 10. C | 20. C |

Tiebreaker

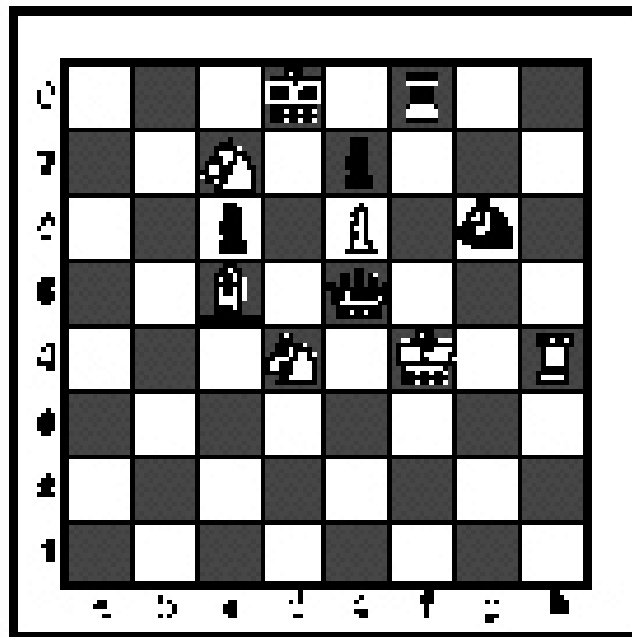
- | | |
|------|------|
| 1. D | 5. A |
| 2. A | 6. D |
| 3. C | 7. D |
| 4. A | 8. C |

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 6, 7, 8

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

- To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.
- Every square on the board has an "address" made up of a letter and a number.

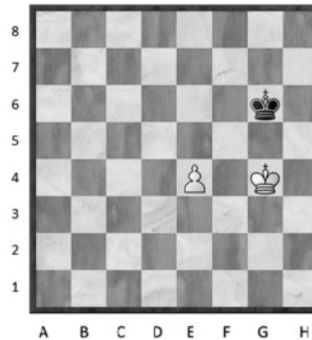


| Piece Names | Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation) |
|-------------|------------------------------------------------------------------------------------------------|
| King | |
| Queen | |
| Rook | |
| Bishop | |
| Knight | |
| Pawn | a-h (We write the file it's on.) |

- To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.
- When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

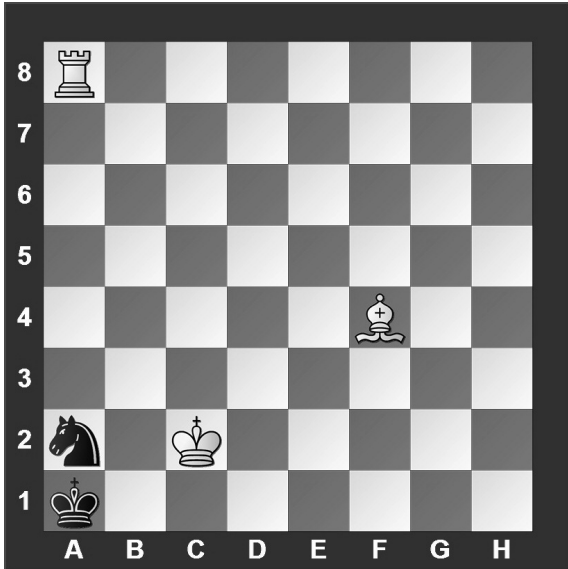


White has just played **e4**.



Black has just played ... **Nf6**.

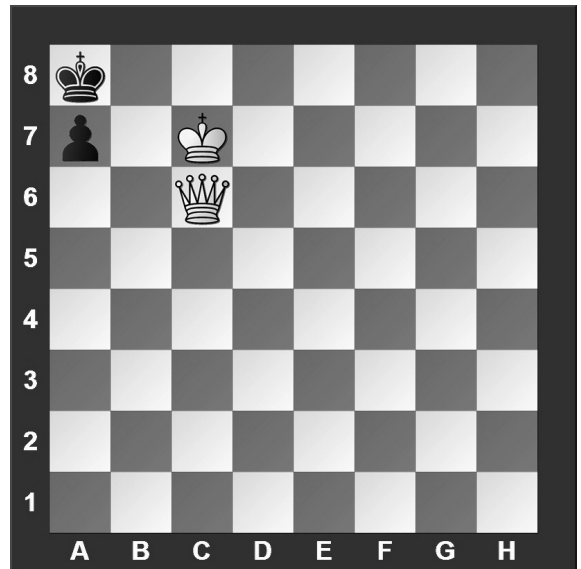
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

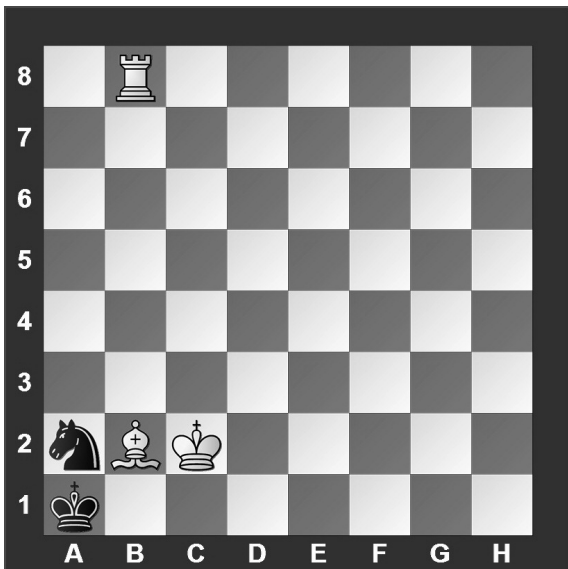
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

#3. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

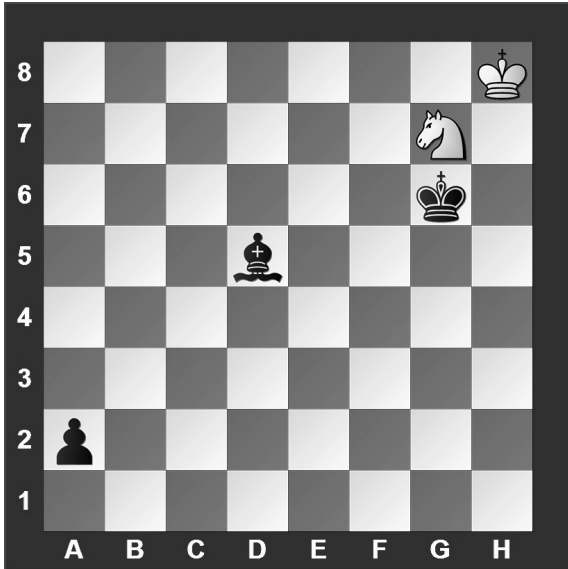
#4.



Which side has material advantage?

- a) White
- b) It is even.
- c) Black
- d) It is not possible to tell.

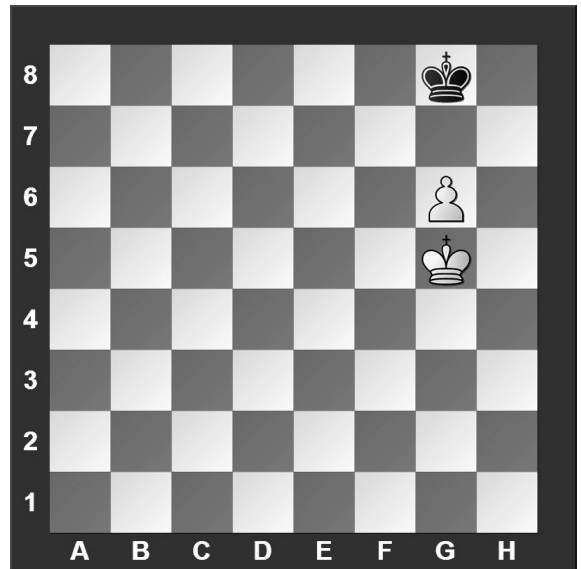
#5. Black to move



What piece should Black promote to?

- a) Bishop.
- b) Queen.
- c) Knight.
- d) Rook.

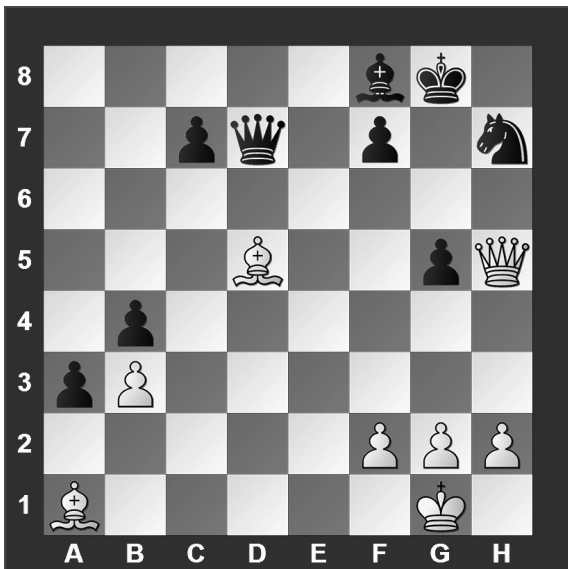
#6. White to move



With the best moves, what is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is impossible to tell.

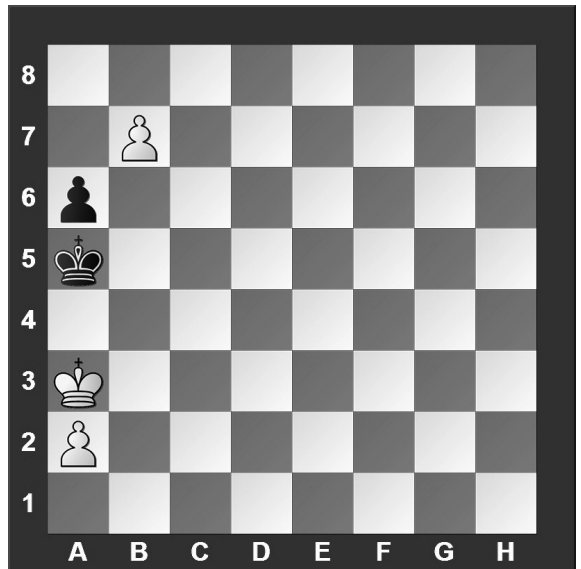
#7. White to move



If White can checkmate Black in two moves, what is the first move?

- a) ♔g6
- b) ♔xh7
- c) ♔xf7
- d) ♕xf7

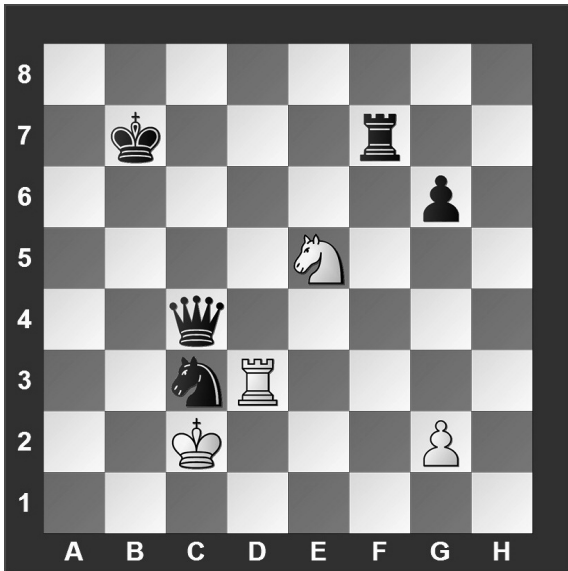
#8. White to move



What piece should White promote to?

- a) Queen.
- b) Rook.
- c) Bishop.
- d) Knight.

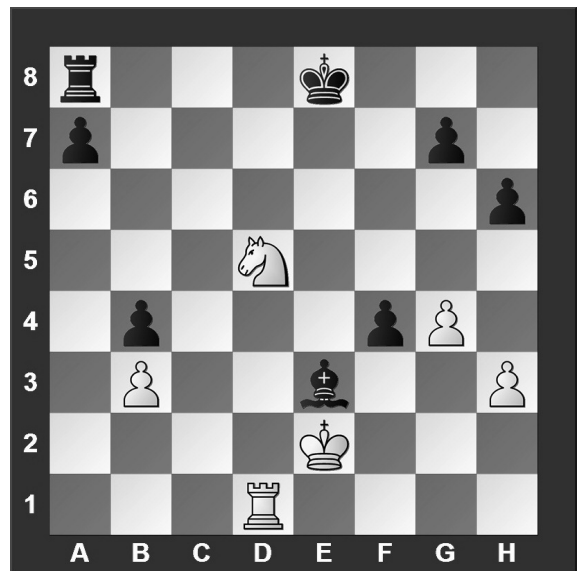
#9. White to move



What piece should White capture?

- a) Queen.
- b) Rook.
- c) Knight.
- d) Pawn.

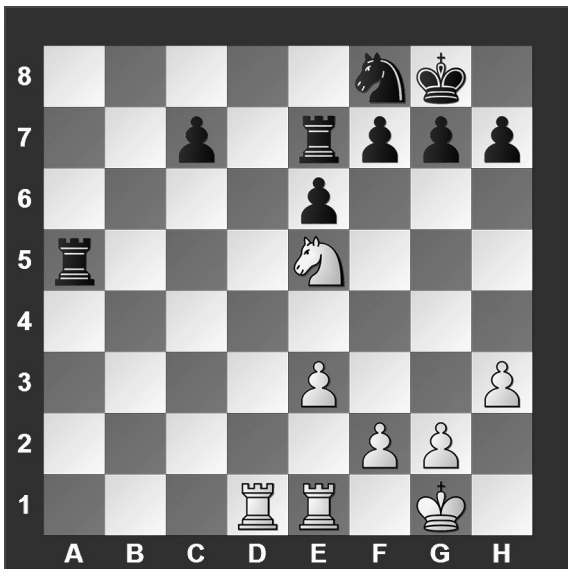
#10. White to move



What is White's best move?

- a) ♖xf4
- b) ♖xe3
- c) ♖c7
- d) ♖d4

#11. White to move



What is White's best move?

- a) ♖xf7
- b) ♖g6
- c) ♖d8
- d) ♖c6

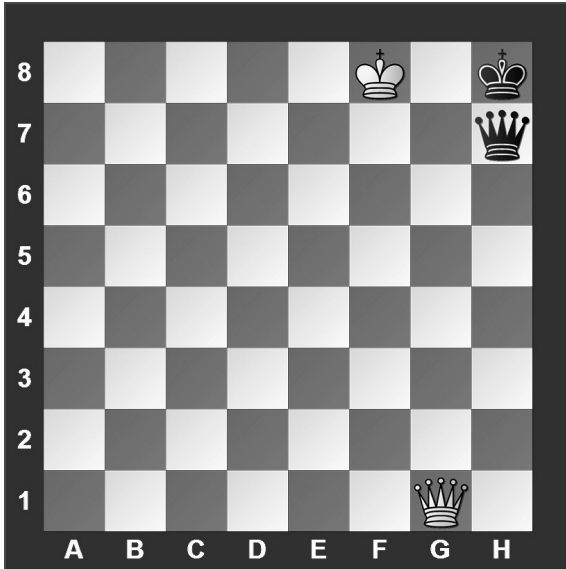
#12. White to move



What is White's best move?

- a) ♔xc8
- b) ♖e8
- c) ♔xg6
- d) ♔xb4

#13. White to move



What is White's best move?

- a) ♔g7
- b) ♔g8
- c) ♔g4
- d) ♔a1

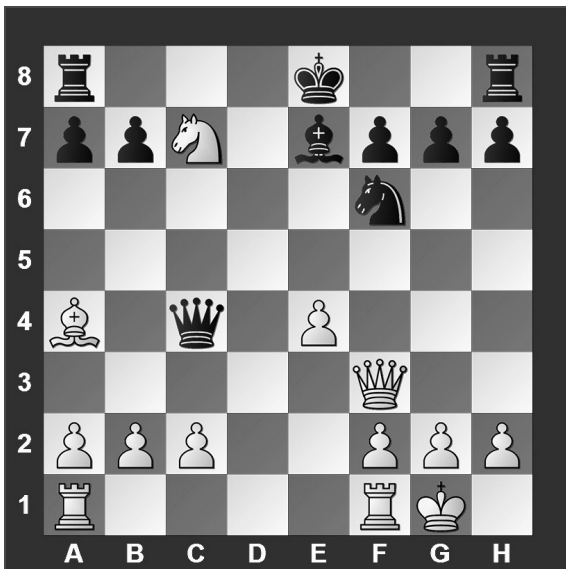
#14. White to move



What is White's best move?

- a) ♔xb6
- b) ♔xc3
- c) ♖g8
- d) ♔xf6

#15. Black to move



What move below is possible for Black?

- a) Short Castle.
- b) Long Castle.
- c) To capture the bishop.
- d) None of the above.

#16. White to move



What is White's best move?

- a) ♔xg6
- b) ♖h8
- c) axb4
- d) ♖h7

#17. White to move



If White can checkmate Black in two moves, what's the first move?

- a) ♖h8
- b) ♖f8
- c) ♖x d7
- d) ♕x f3

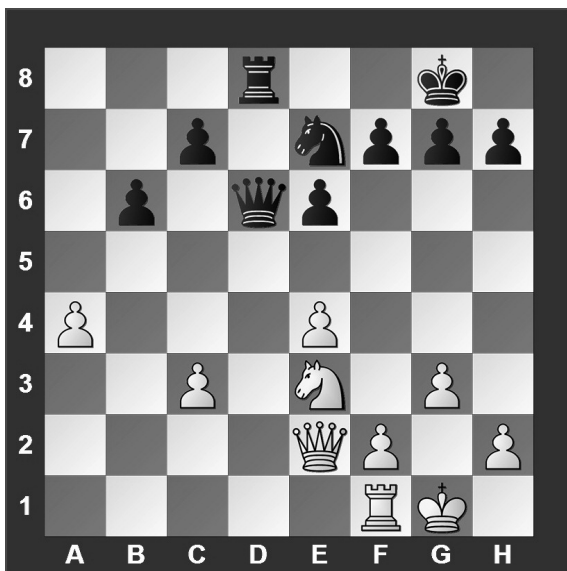
#18. White to move



What is White's best move?

- a) ♘c2
- b) ♘c4
- c) g5
- d) ♙x f6

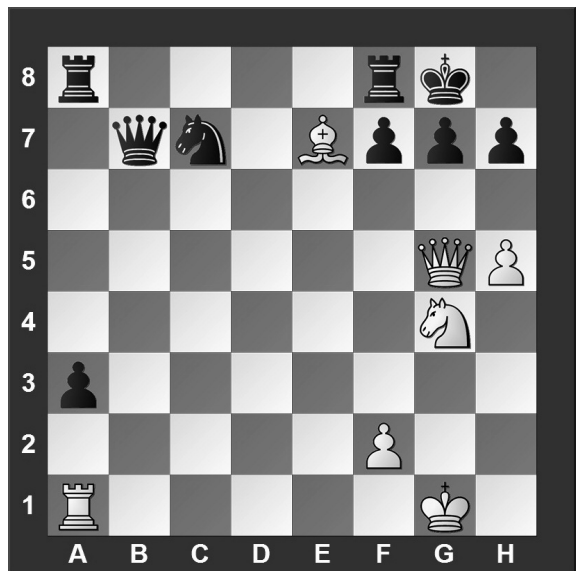
#19. White to move



What is White's best move?

- a) e5
- b) ♘c4
- c) ♖d1
- d) ♝g2

#20. White to move



What is White's best move?

- a) ♕f6
- b) ♘f6
- c) ♖x a3
- d) ♙x g7



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Invitational — Grades 6, 7, and 8
ANSWER KEY**

Test

- | | |
|------|-------|
| 1. B | 11. D |
| 2. A | 12. A |
| 3. A | 13. D |
| 4. A | 14. D |
| 5. D | 15. D |
| 6. C | 16. B |
| 7. A | 17. C |
| 8. D | 18. A |
| 9. A | 19. C |
| 10.C | 20. D |

Tiebreaker

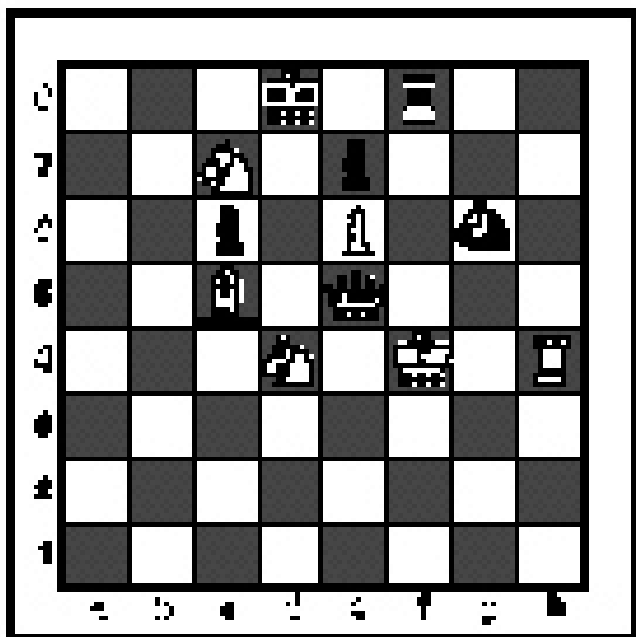
- | | |
|------|------|
| 1. D | 5. A |
| 2. A | 6. D |
| 3. C | 7. D |
| 4. A | 8. C |

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the tiebreaker test for all grades for the Invitational UIL Chess Puzzle Solving Test.

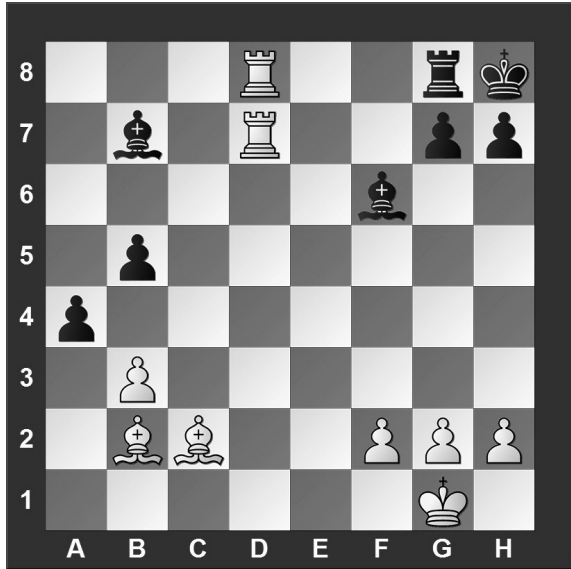
Use the separate answer sheet to write all your answers. You have five (5) minutes to take this part of the test. There are eight (8) questions. Some questions are very difficult.

As before, the symbols for check and checkmate commonly used after moves have been omitted because they would be hints.

Each correct answer earns you one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!

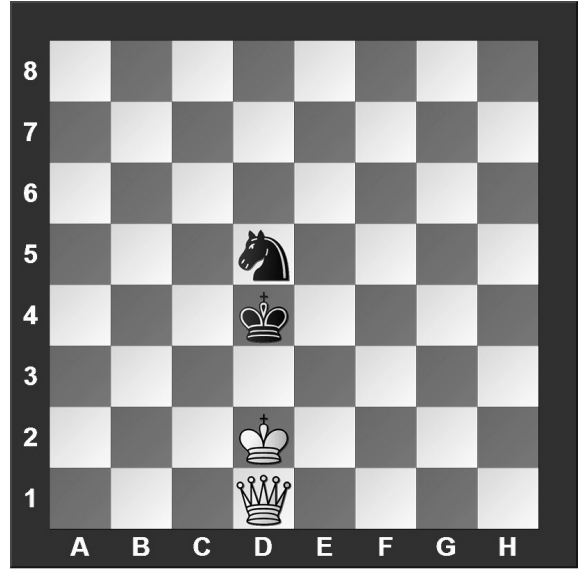
#1. White to move



If White can checkmate Black in two moves, what is White's *first* move?

- a) ♖×g8
- b) ♖×b7
- c) ♖×g7
- d) ♗×f6

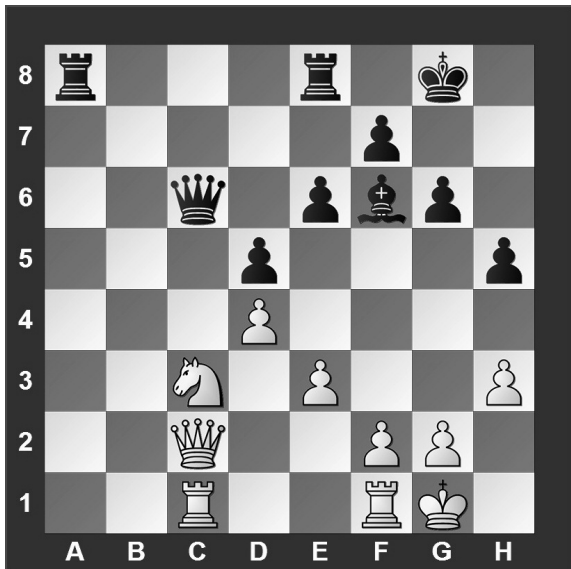
#2. White to move



What should be the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

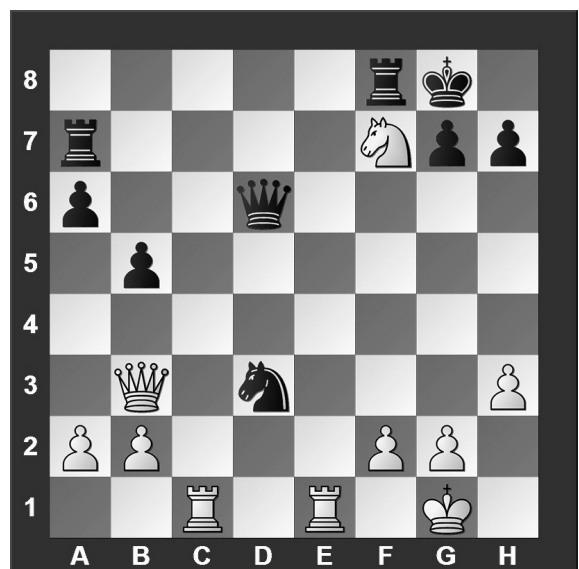
#3. White to move



What is White's best move?

- a) ♗×d5
- b) ♖×g6
- c) ♗e4
- d) e4

#4. White to move



What is White's best move?

- a) ♗×d6
- b) ♗h6
- c) ♖×d3
- d) ♖e8

#5. White to move



What is White's best move?

- a) ♖g6
- b) ♖d5
- c) ♗×b5
- d) ♖c6

#6. White to move



If White can force checkmate in two moves, what is White's *second* move?

- a) ♔×h7
- b) ♖×e5
- c) ♖×g6
- d) ♖×h7

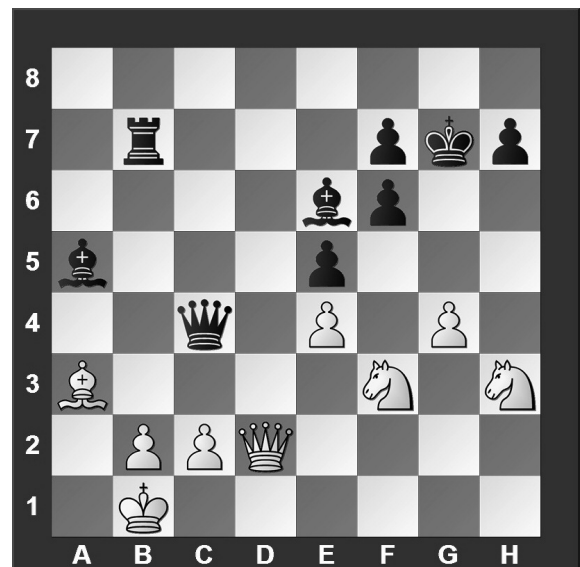
#7. White to move



If White can force checkmate in three moves, what is the *last* move?

- a) ♖f6
- b) ♖b6
- c) ♖d8
- d) ♖a8

#8. White to move



If White can force checkmate in three moves, what is the *last* move?

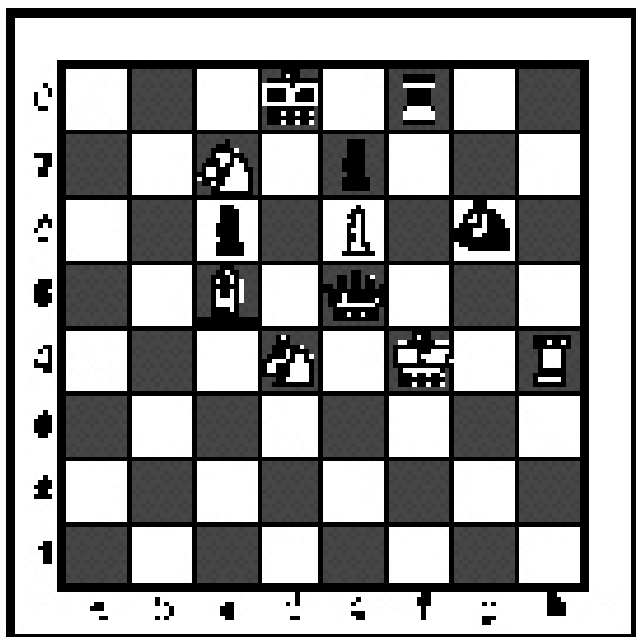
- a) ♗f8
- b) ♖h6
- c) ♖h4
- d) ♖f4

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving


grades 2 & 3

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

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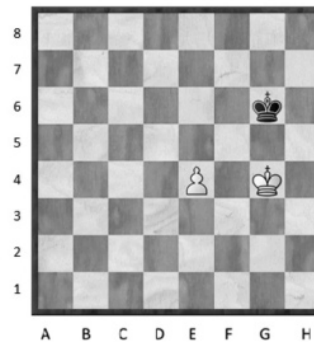


| Piece Names | Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation) |
|-------------|------------------------------------------------------------------------------------------------|
| King |  |
| Queen |  |
| Rook |  |
| Bishop |  |
| Knight |  |
| Pawn | a-h (We write the file it's on.) |

- To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.
- When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

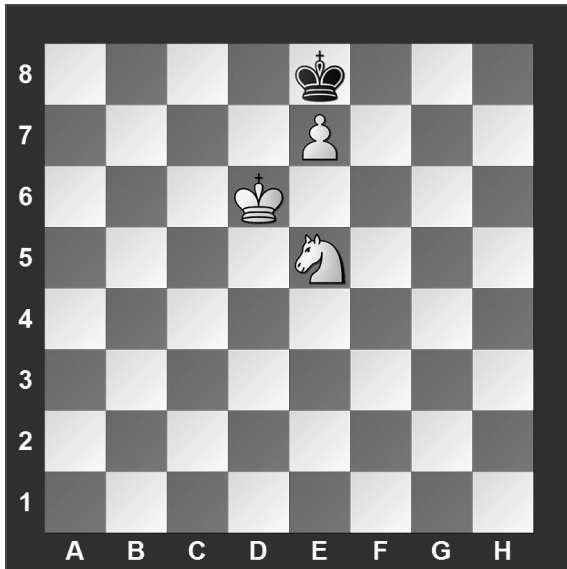


White has just played **e4**.



Black has just played ... **Nf6**.

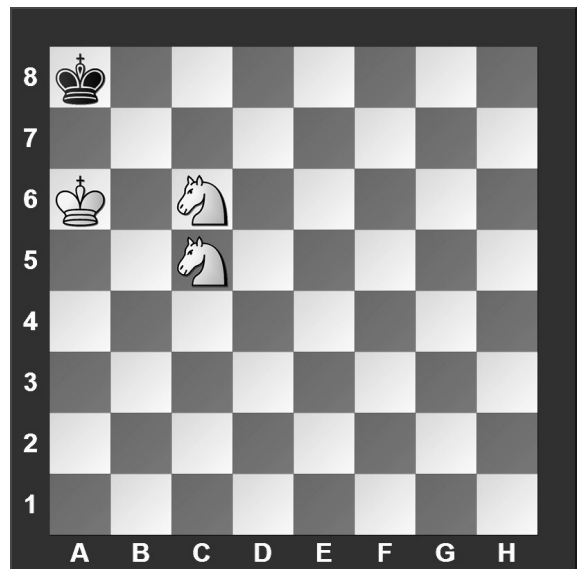
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

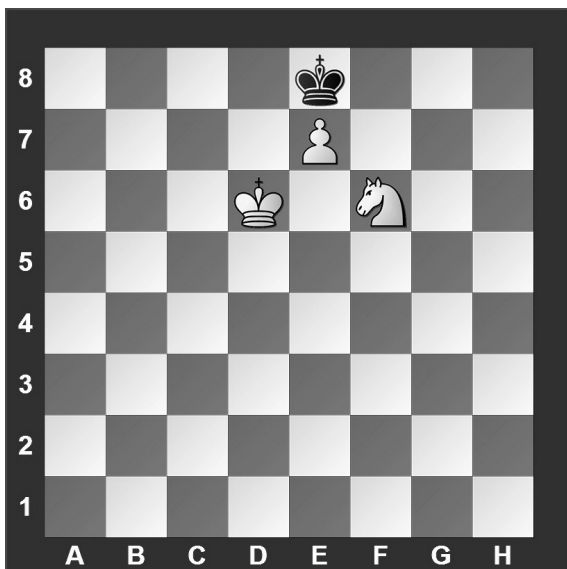
#2. Black to move



What term best describes this situation?

- a) Black is in stalemate.
- b) Black is in checkmate.
- c) Black is in check.
- d) None of the above.

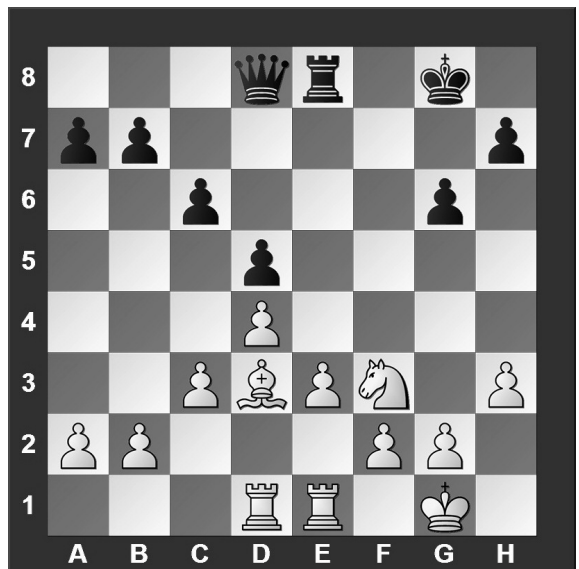
#3. Black to move



What term best describes this situation?

- a) Black is in check.
- b) Black is in stalemate.
- c) Black is in checkmate.
- d) None of the above.

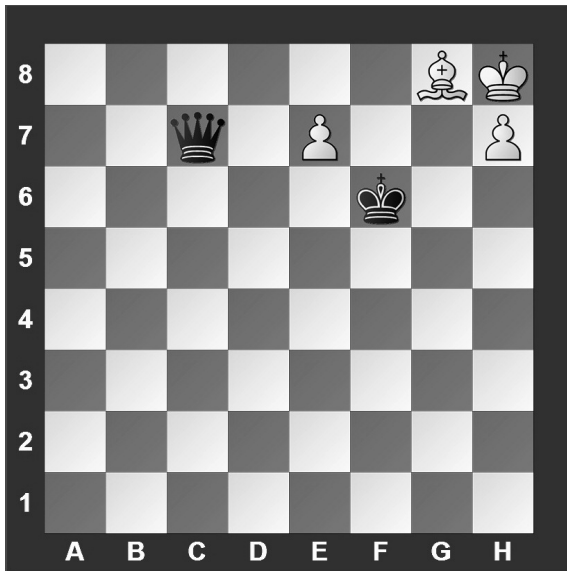
#4.



Which side has a material advantage?

- a) Black
- b) White
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

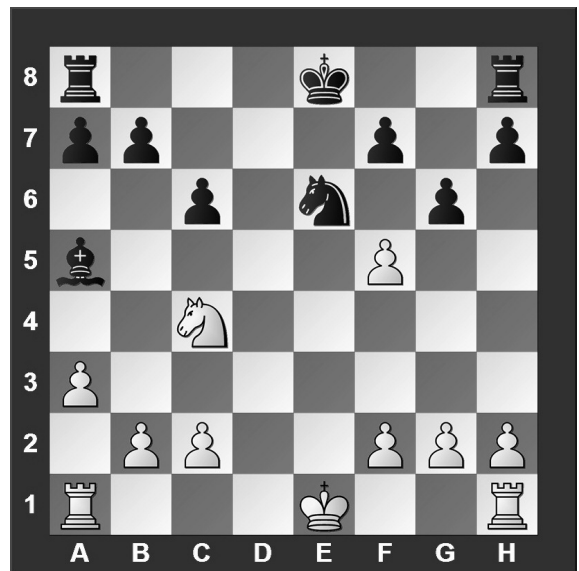
#5. White to move



What piece should White promote to?

- a) Queen.
- b) Bishop.
- c) Rook.
- d) Knight.

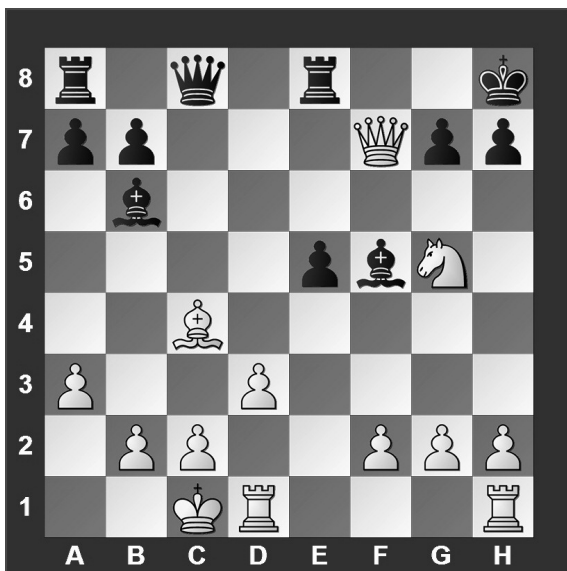
#6. White to move



Which move is possible for White?

- a) Long Castle
- b) Short Castle
- c) To capture the bishop
- d) To capture the knight

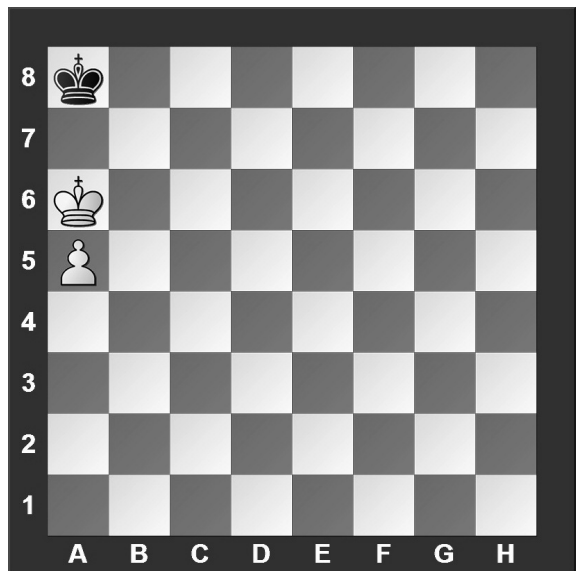
#7. White to move



If White can checkmate Black in two moves, what is the *first* move?

- a) ♔×e8
- b) ♔×f5
- c) ♔×g7
- d) ♔g8

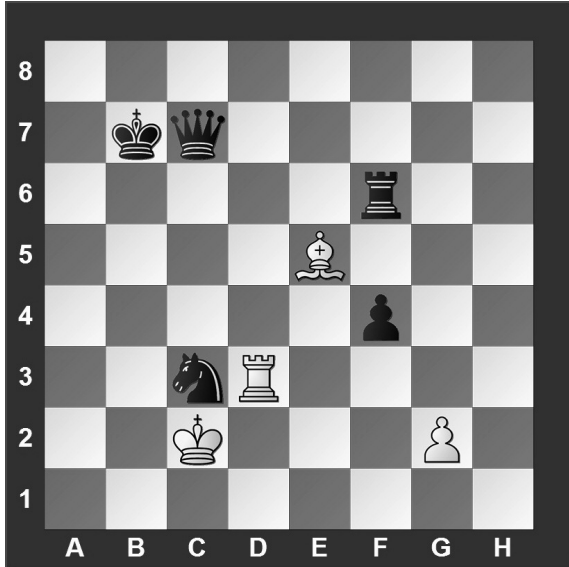
#8. White to move



With the best moves, what will be the outcome of the game

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

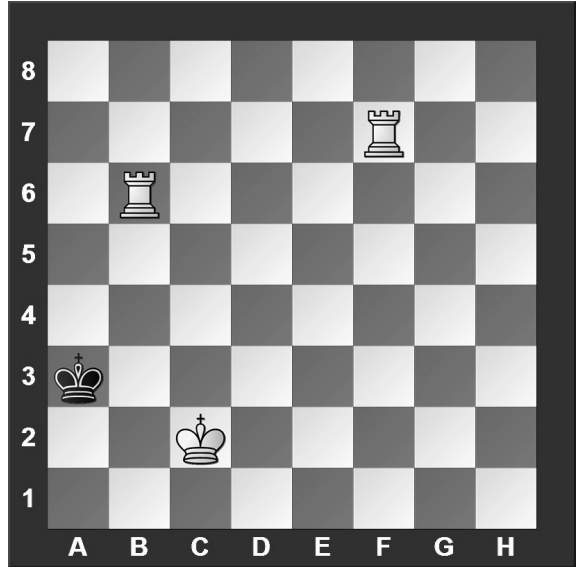
#9. White to move



What piece should White capture?

- a) Queen
- b) Knight
- c) Rook
- d) Pawn

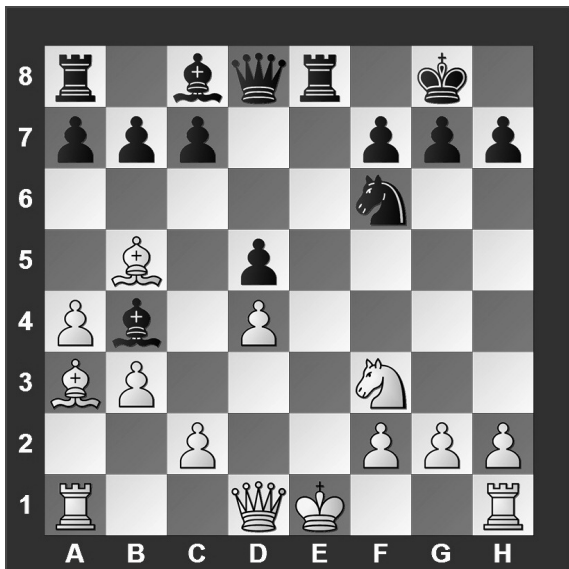
#10. White to move



What is White's best move?

- a) ♖f3
- b) ♖b3
- c) ♖a7
- d) ♖a6

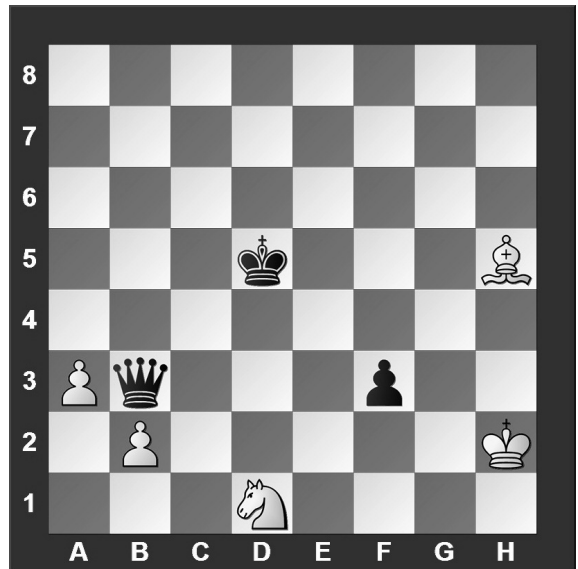
#11. White to move



Which move is possible for White?

- a) Short castle.
- b) To capture the bishop.
- c) To capture the rook.
- d) Move the king to f1.

#12. White to move



What is White's best move?

- a) ♘c3
- b) ♘e3
- c) ♙×f3
- d) ♙f7

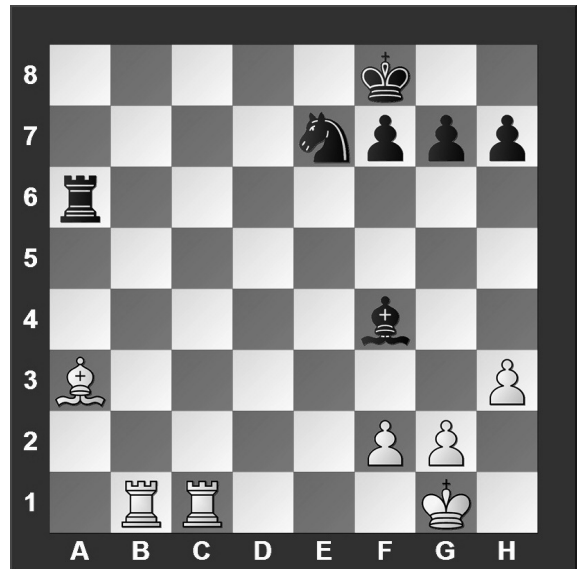
#13. White to move



What is White's best move?

- a) Nxc5
- b) Qxh7
- c) Qf5
- d) Qb5

#14. White to move



If White can checkmate Black in one move, what is the right move?

- a) Rb8
- b) Rc8
- c) Qxe7
- d) Qh1

#15. White to move



Black just played f7 to f5. Which pawn can White capture?

- a) Black's a-pawn.
- b) Black's b-pawn.
- c) Black's f-pawn.
- d) Black's g-pawn.

#16. White to move



What is White's best move?

- a) Kg8
- b) Qxa4
- c) Qf7
- d) Qxc7



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Fall/Winter — Grades 2 & 3**

ANSWER KEY

Test

- | | |
|------|-------|
| 1. B | 11. D |
| 2. A | 12. D |
| 3. A | 13. A |
| 4. B | 14. B |
| 5. D | 15. C |
| 6. C | 16. A |
| 7. D | |
| 8. C | |
| 9. A | |
| 10.C | |

Tiebreaker

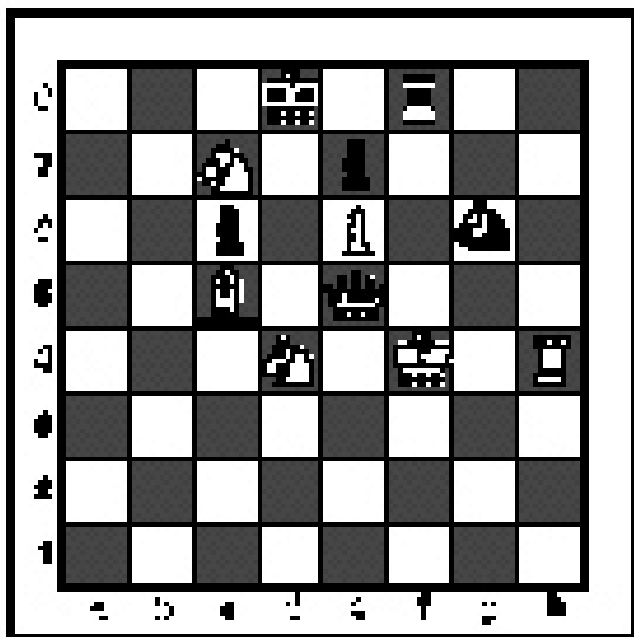
- | | |
|------|------|
| 1. B | 5. B |
| 2. A | 6. D |
| 3. C | 7. C |
| 4. B | 8. A |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving






grades 4 & 5

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

- To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.
- Every square on the board has an "address" made up of a letter and a number.

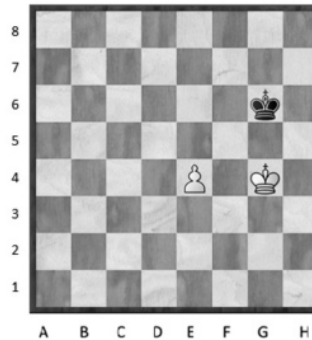


| Piece Names | Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation) |
|-------------|------------------------------------------------------------------------------------------------|
| King |  |
| Queen |  |
| Rook |  |
| Bishop |  |
| Knight |  |
| Pawn | a-h (We write the file it's on.) |

- To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.
- When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

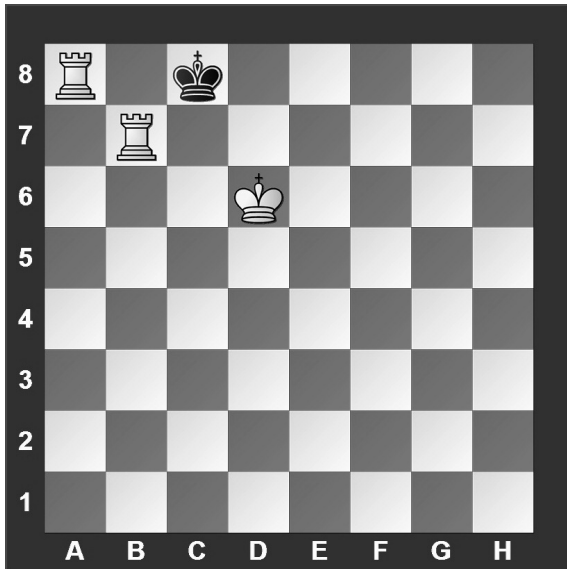


White has just played **e4**.



Black has just played ... **Nf6**.

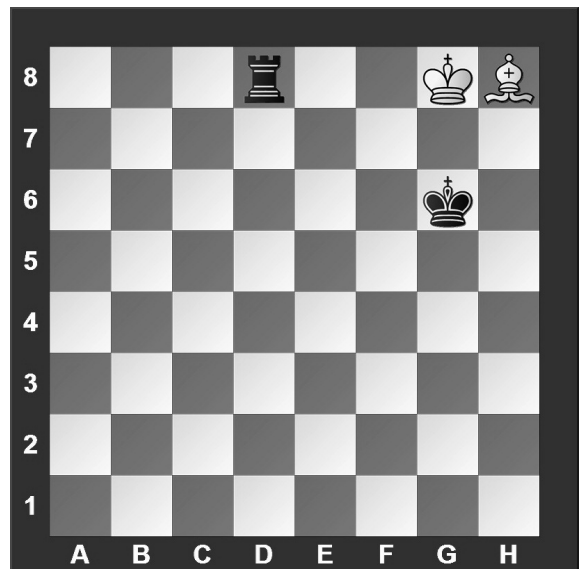
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

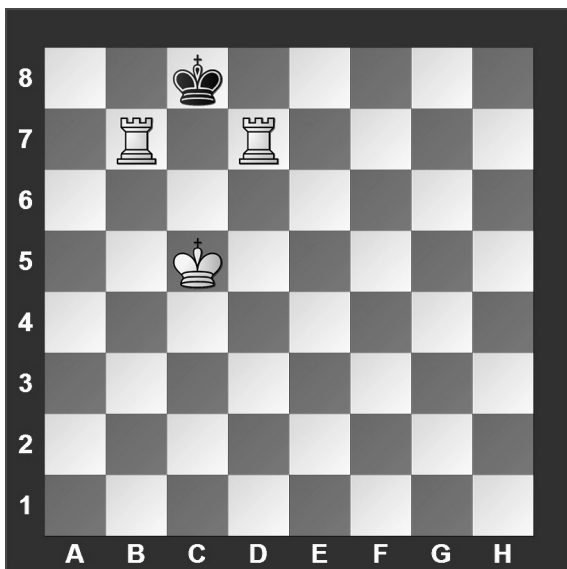
#2. White to move



What term best describes this situation?

- a) White is in checkmate.
- b) White is in stalemate.
- c) White is in check.
- d) None of the above.

#3 Black to move.



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

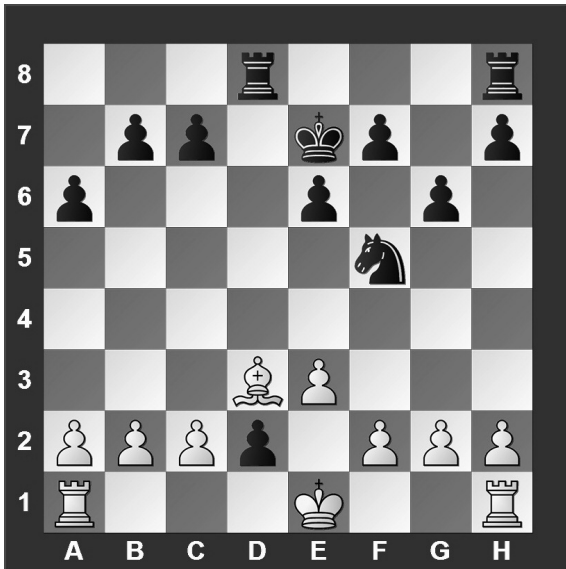
#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

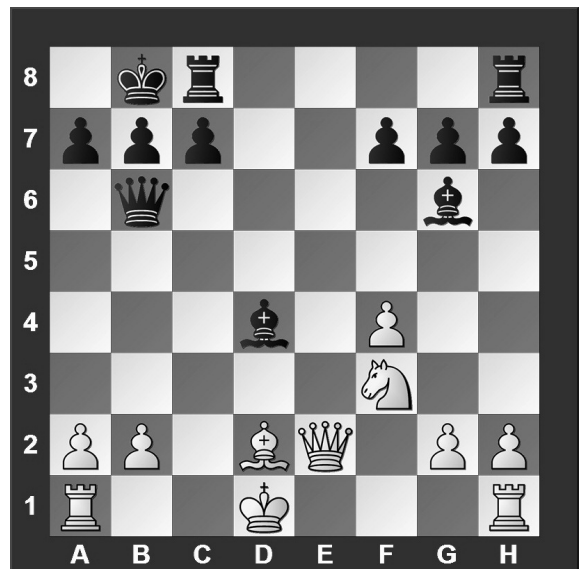
#5. White to move



Which move below is possible for White?

- a) Short Castle .
- b) Long Castle.
- c) To capture the pawn.
- d) To capture the knight.

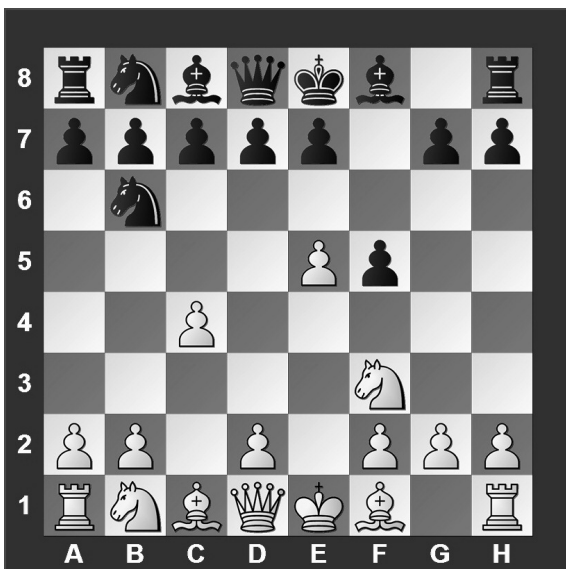
#6. White to move



What move below is possible for White?

- a) Short Castle.
- b) Long Castle.
- c) Capture the bishop.
- d) All of the above.

#7. White to move



Black just played f7 to f5. Which pawn can be captured?

- a) Black's d-pawn
- b) Black's f-pawn
- c) Black's g-pawn
- d) White can't capture a pawn.

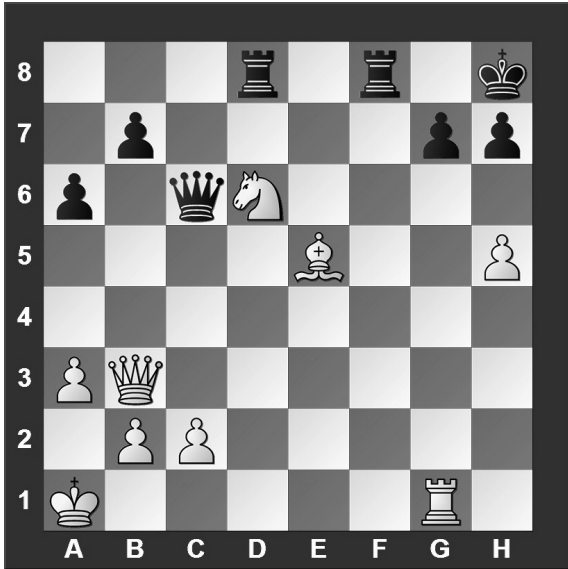
#8. White to move



What is White's best move?

- a) ♖×d6
- b) ♖a6
- c) ♖c8
- d) b4

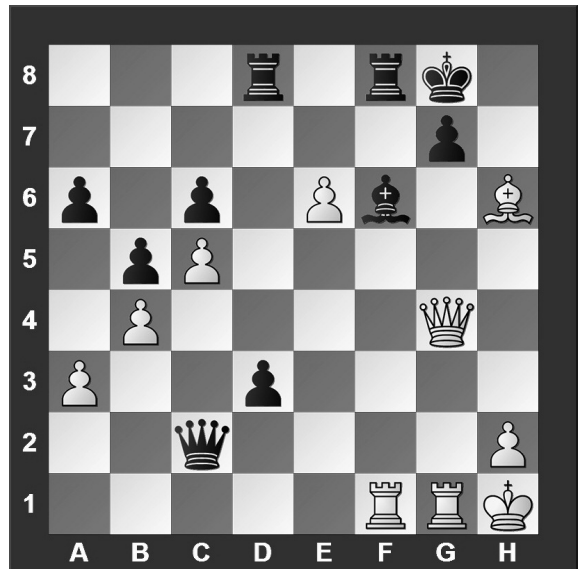
#9. White to move



If White can checkmate Black in one move, what is the right move?

- a) ♔g8
- b) ♘f7
- c) ♕xg7
- d) h6

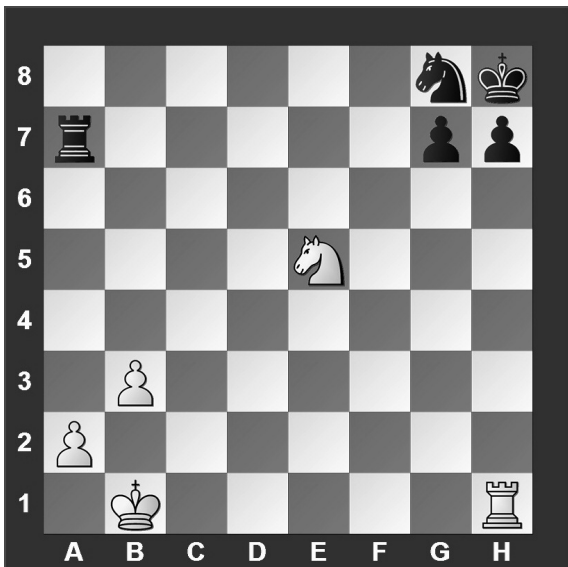
#10. White to move



What is White's best move?

- a) ♔xg7
- b) ♖xg6
- c) ♖f2
- d) ♔c4

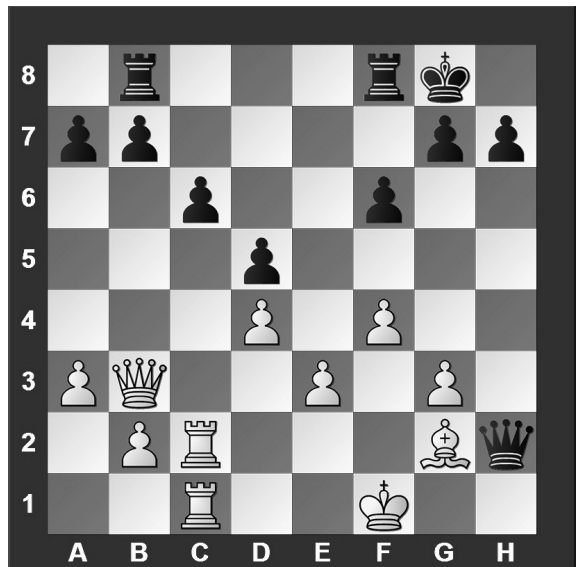
#11. White to move



What is White's best move?

- a) ♘f7
- b) ♘g6
- c) ♖xh7
- d) ♘c6

#12. White to move



What is White's best move?

- a) ♔xb7
- b) ♖xc6
- c) ♕xd5
- d) ♖e1

#13. White to move



What is White's best move?

- a) ♔a5
- b) ♔x e5
- c) ♖x c4
- d) ♗c2

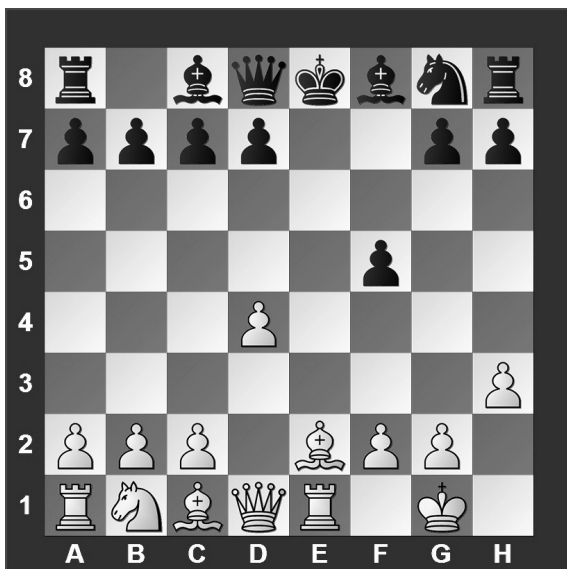
#14. Black to move



What is Black's best move?

- a) ♜b3
- b) ♜c2
- c) ♞h8
- d) ♗c2

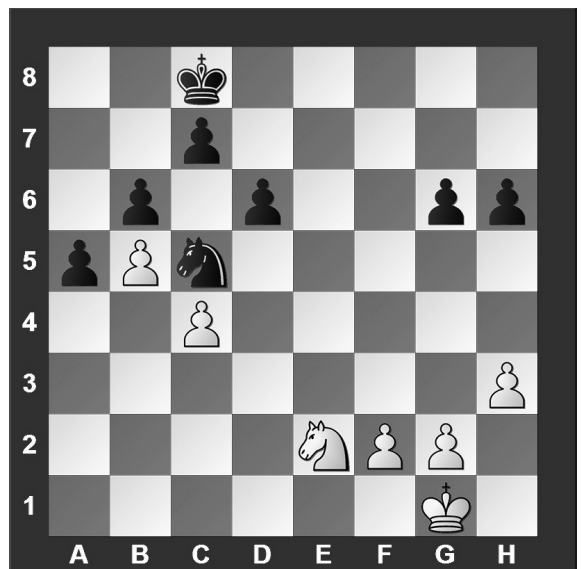
#15. White to move



What is White's best move?

- a) ♗c4
- b) ♗h5
- c) ♗d3
- d) ♘a3

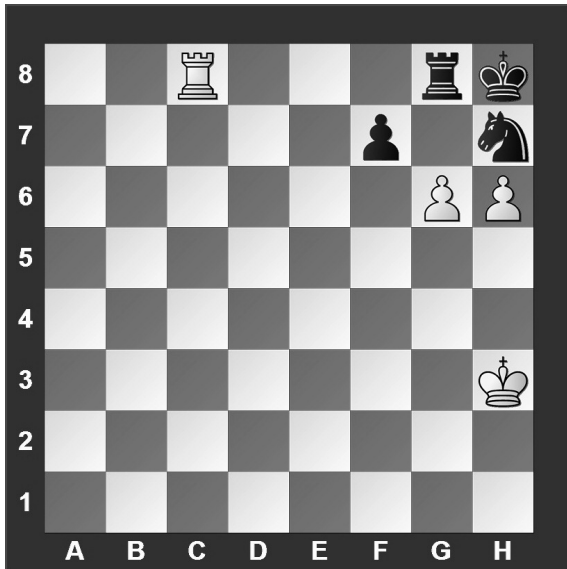
#16. White to move



Black just played a7 to a5. What pawn can be captured?

- a) Black's b-pawn.
- b) Black's a-pawn.
- c) Black's d-pawn.
- d) Black's g-pawn.

#17. White to move



If White can checkmate Black in one move, what is the right move?

- a) ♖×g8
- b) g7
- c) g×h7
- d) g×f7

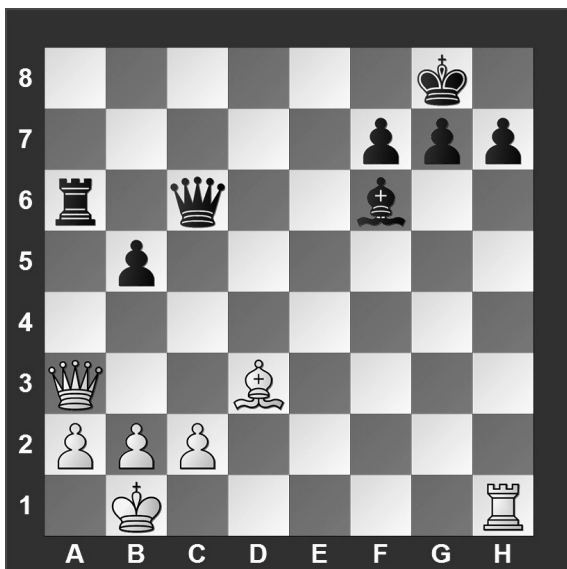
#18. White to move



What is White's best move?

- a) ♖×g6
- b) ♖h5
- c) ♗×d1
- d) ♖×d1

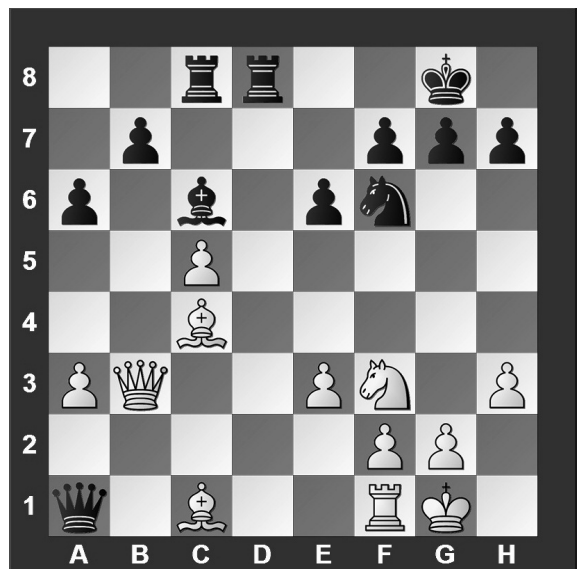
#19. White to move



If White can checkmate Black in two moves, what's the *first* move?

- a) ♖f8
- b) ♖h7
- c) ♗h7
- d) White can't checkmate Black in two moves.

#20. White to move



What is White's best move?

- a) ♗b2
- b) ♖b2
- c) ♗×e6
- d) ♘e5



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Fall/Winter — Grades 4 & 5**

ANSWER KEY

Test

- | | |
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| 2. A | 12. C |
| 3. B | 13. A |
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| 7. B | 17. B |
| 8. D | 18. B |
| 9. C | 19. C |
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Tiebreaker

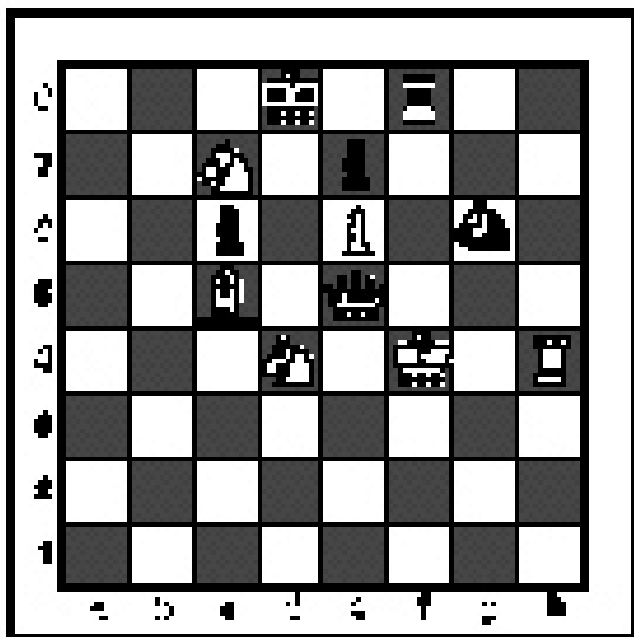
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FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 6, 7, 8

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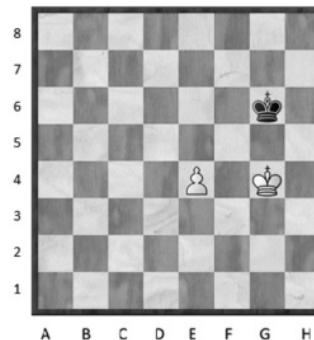


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| Queen |  |
| Rook |  |
| Bishop |  |
| Knight |  |
| Pawn | a-h (We write the file it's on.) |

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At right are two sample moves.

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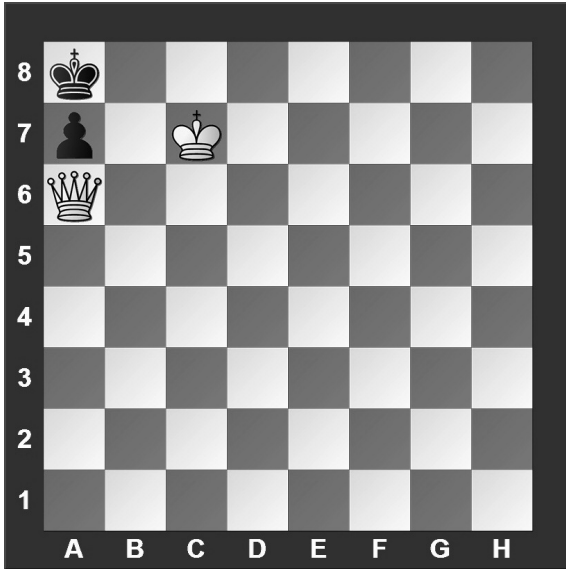


White has just played **e4**.



Black has just played ... **Nf6**.

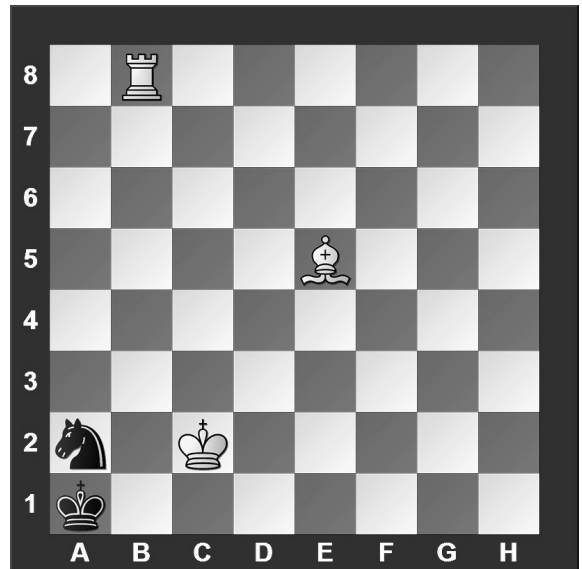
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

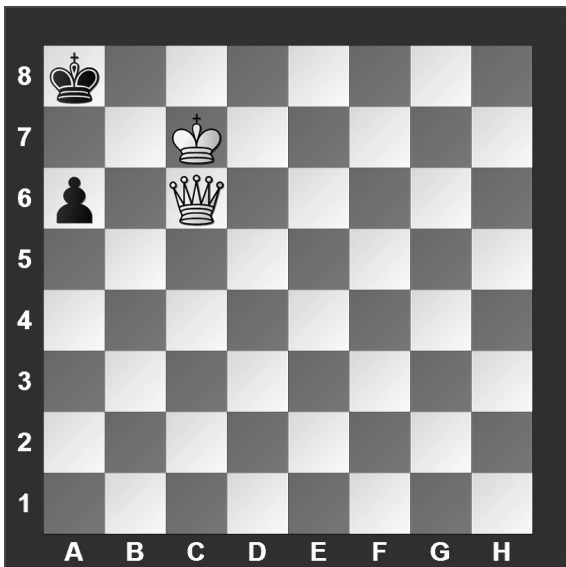
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

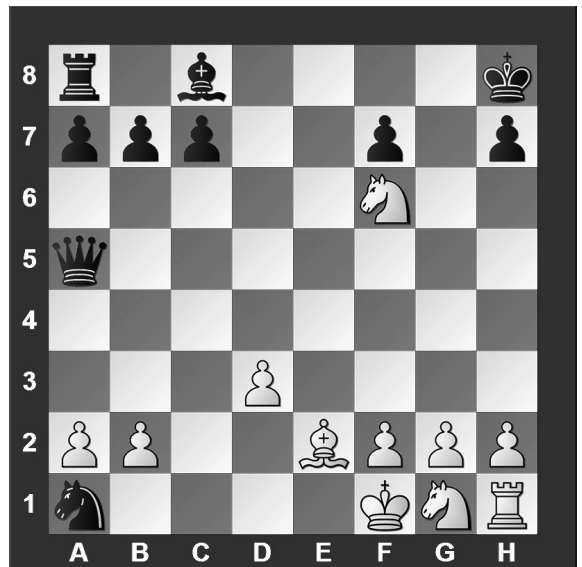
#3. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

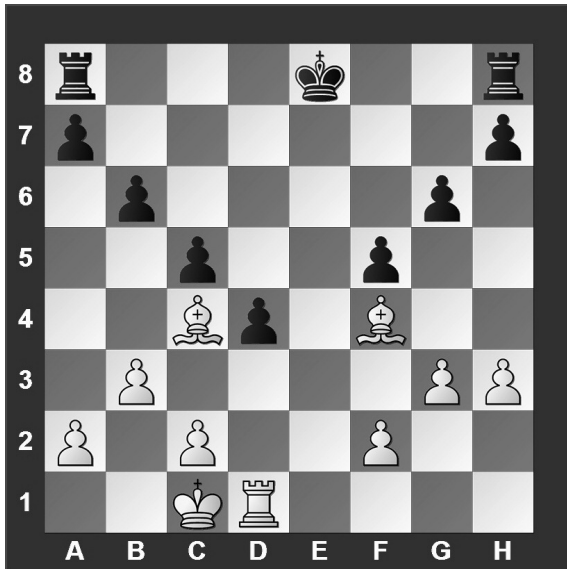
#4.



Which side has material advantage?

- a) White
- b) It is even.
- c) Black
- d) It is not possible to tell.

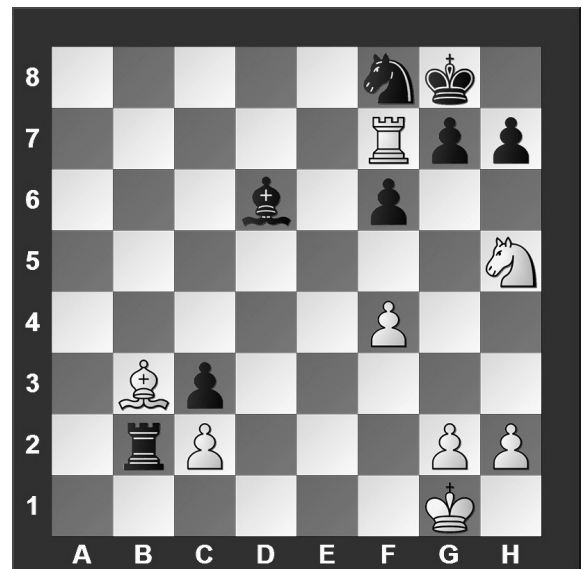
#5. Black to move



Which move is possible for Black?

- a) Short Castle.
- b) Long Castle.
- c) Both A and B.
- d) Neither A or B.

#6. White to move



If White can checkmate Black in two moves, what is the first move?

- a) ♖×f6
- b) ♜×f6
- c) ♜×g7
- d) ♖×g7

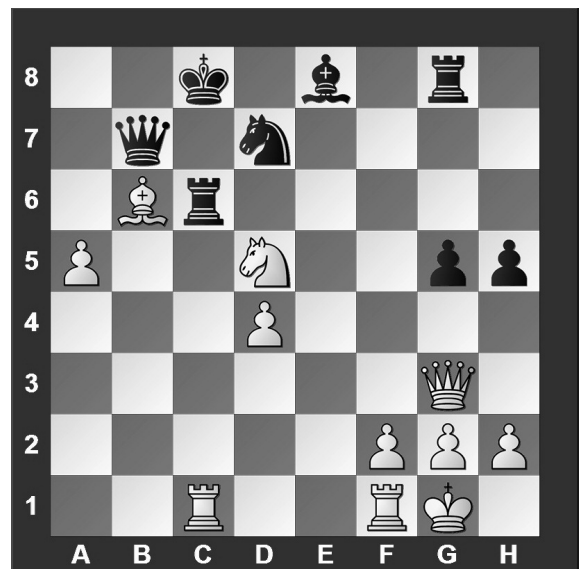
#7. White to move



Black just played c7 to c5. Which pawn can be captured?

- a) Black's c-pawn.
- b) Black's e-pawn.
- c) Black's g-pawn.
- d) White can't capture a pawn.

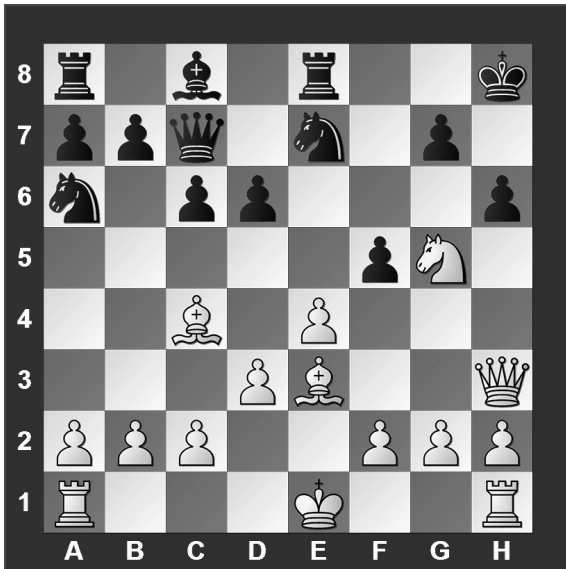
#8. White to move



What is White's best move?

- a) ♔c7
- b) ♜×c6
- c) ♖e7
- d) ♔b8

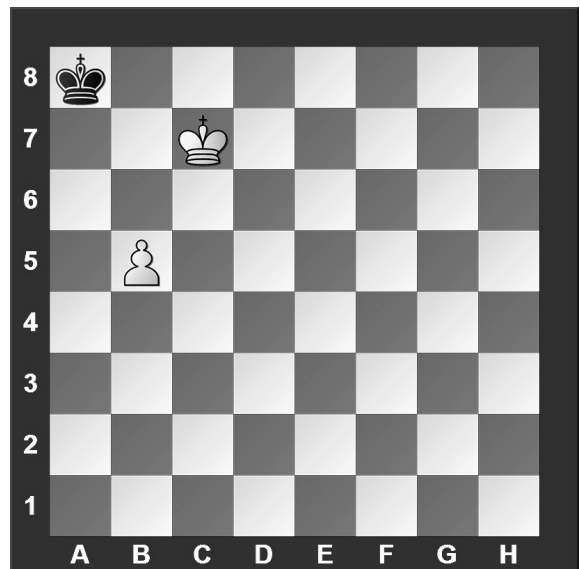
#9. White to move



White can checkmate Black in two moves, what's the *first* move?

- a) ♔×h6
- b) ♘f7
- c) ♗b6
- d) ♔h4

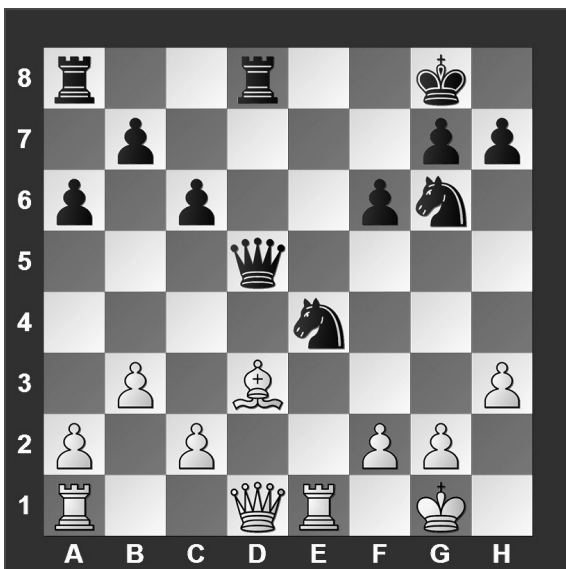
#10. White to move



What is White's best move?

- a) ♖b6
- b) b6
- c) ♖d8
- d) ♖d7

#11. White to move



What is White's best move?

- a) ♗×e4
- b) ♖×e4
- c) ♗c4
- d) ♔f3

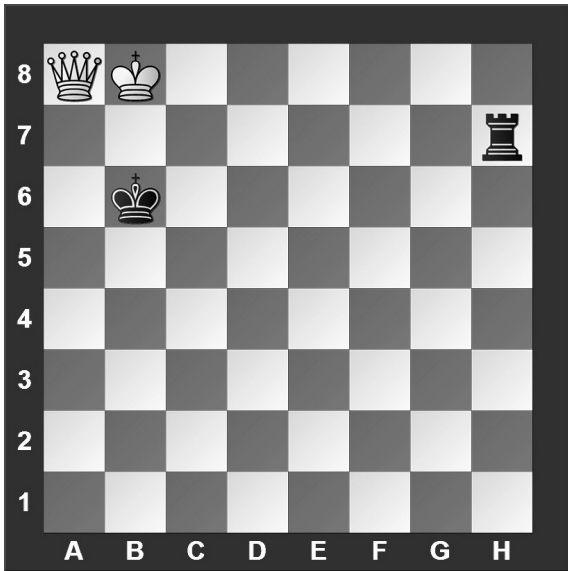
#12. White to move



What is White's best move?

- a) ♔×c8
- b) ♖e8
- c) ♔×g6
- d) ♔×b4

#13. White to move



What is White's best move?

- a) ♔b7
- b) ♔a7
- c) ♔e4
- d) ♔a1

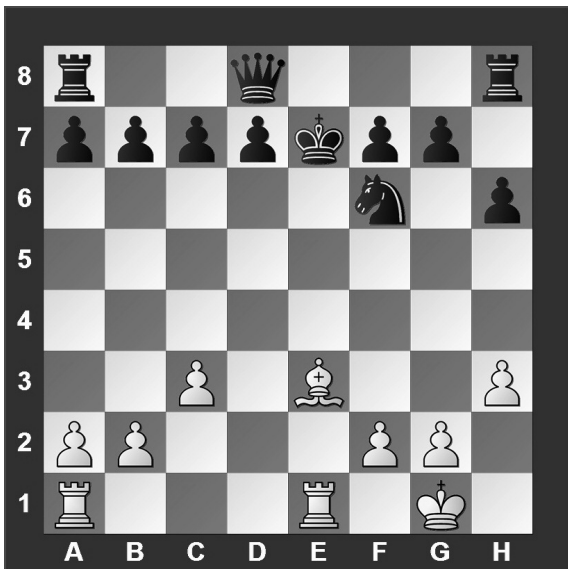
#14. White to move



What is White's best move?

- a) ♖x f7
- b) ♕h6
- c) ♞b5
- d) e x d5

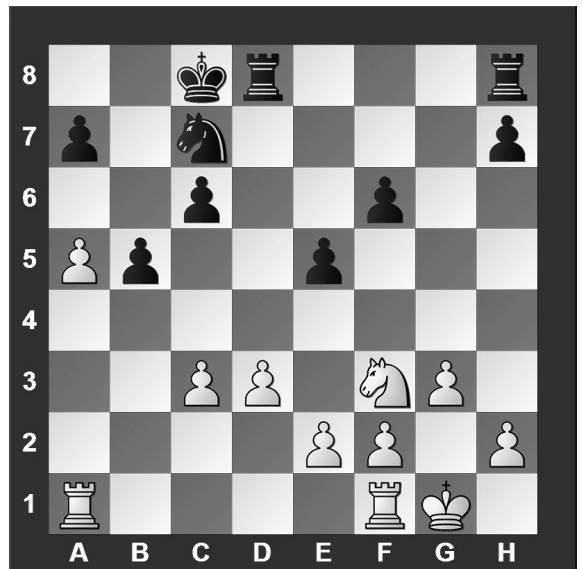
#15. White to move



If White can checkmate Black in one move, what's the right move?

- a) ♕g5
- b) ♕xh6
- c) ♕c5
- d) ♕xa7

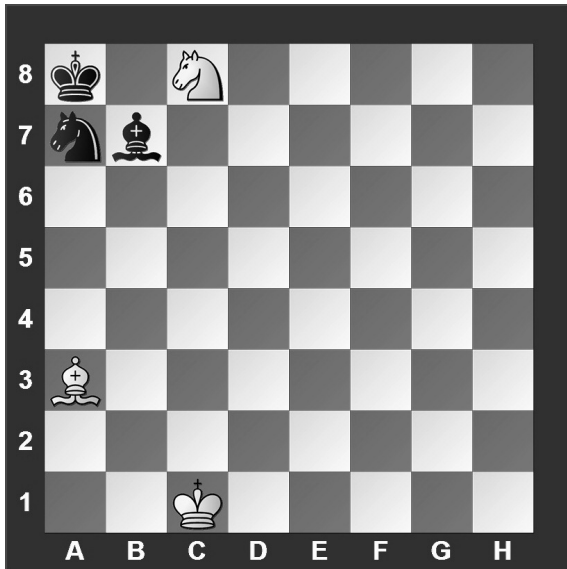
#16. White to move



Black just played b7 to b5. Which pawn can be captured?

- a) Black's a-pawn.
- b) Black's f-pawn.
- c) Black's h-pawn.
- d) Black's b-pawn.

#17. White to move



What is White's best move?

- a) $\text{N} \times \text{a7}$
- b) $\text{N} \text{d6}$
- c) $\text{N} \text{b6}$
- d) $\text{B} \text{d6}$

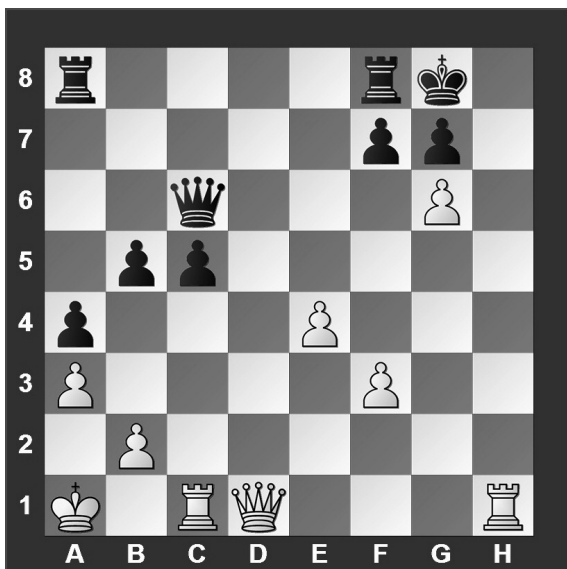
#18. White to move



If White can checkmate Black in two moves, what's the first move?

- a) $\text{R} \text{h3}$
- b) $\text{R} \text{g4}$
- c) $\text{N} \text{g5}$
- d) $\text{R} \times \text{d5}$

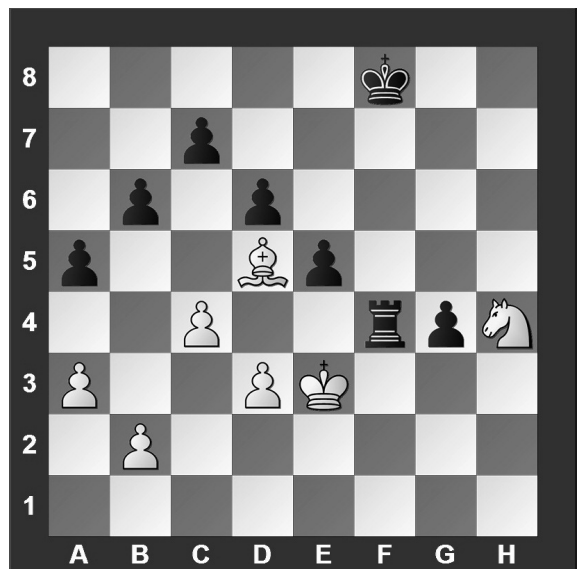
#19. White to move



If White can checkmate Black in three moves, what's the *first* move?

- a) $\text{g} \times \text{f7}$
- b) $\text{K} \text{d5}$
- c) $\text{K} \text{d6}$
- d) $\text{R} \text{h8}$

#20. White to move



What is White's best move?

- a) $\text{N} \text{g6}$
- b) $\text{N} \text{g2}$
- c) $\text{B} \text{f3}$
- d) $\text{K} \text{e2}$



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Fall/Winter — Grades 6, 7, and 8
ANSWER KEY**

Test

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|-------|-------|
| 1. B | 11. C |
| 2. C | 12. A |
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| 4. C | 14. D |
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| 6. C | 16. D |
| 7. A | 17. C |
| 8. C | 18. C |
| 9. A | 19. D |
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Tiebreaker

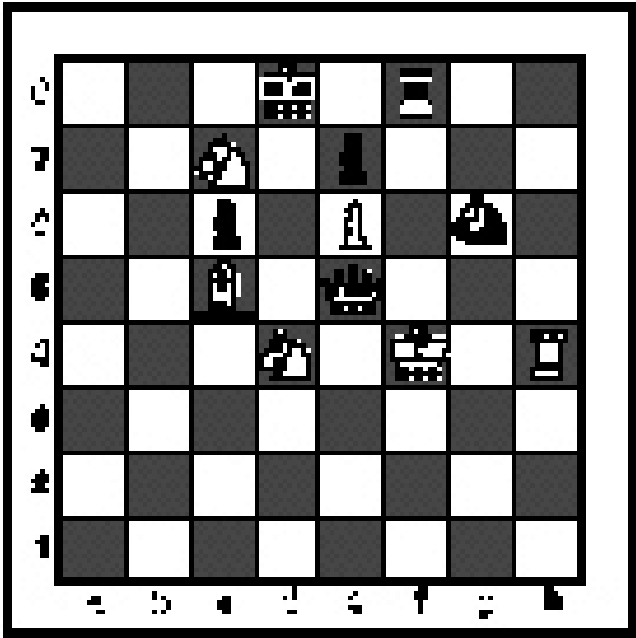
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| 2. A | 6. D |
| 3. C | 7. C |
| 4. B | 8. A |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the tiebreaker test for all grades for the Fall/Winter District UIL Chess Puzzle Solving Test.

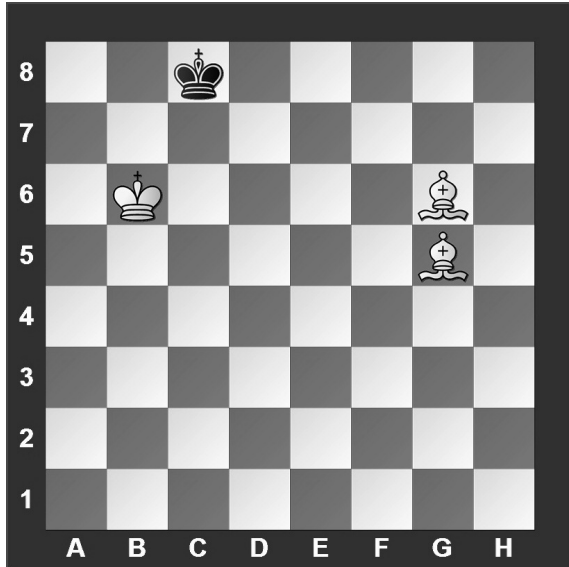
Use the separate answer sheet to write all your answers. You have five (5) minutes to take this part of the test. There are eight (8) questions. Some questions are very difficult.

As before, the symbols for check and checkmate commonly used after moves have been omitted because they would be hints.

Each correct answer earns you one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!

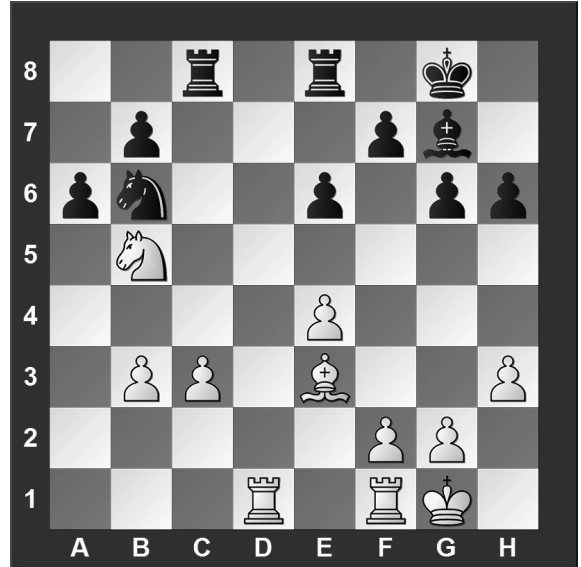
#1. White to move



If White can force checkmate, how many moves does it take?

- a) 2 moves
- b) 3 moves
- c) 4 moves
- d) White can't force checkmate.

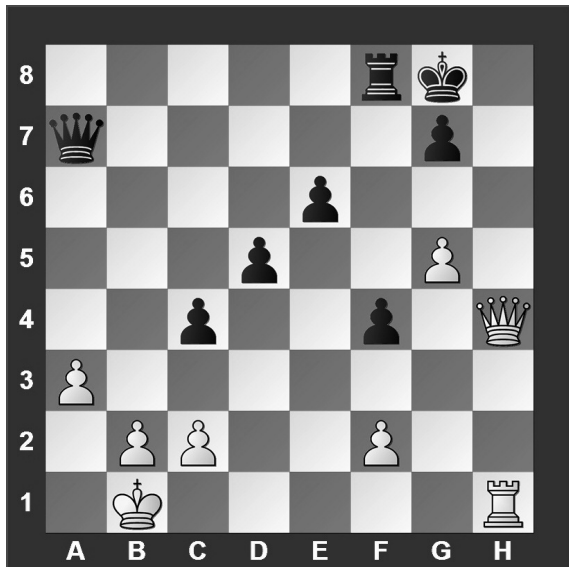
#2. White to move



What is White's best move?

- a) $\text{N}d6$
- b) $\text{N}a7$
- c) $\text{Q} \times b6$
- d) $c4$

#3. White to move



What is White's best move?

- a) $\text{Q}h7$
- b) $\text{Q}h8$
- c) $g6$
- d) $c3$

#4. White to move



What is White's best move?

- a) $\text{Q} \times b5$
- b) $a \times b5$
- c) $\text{Q} \times d5$
- d) $\text{N}e5$

#5. White to move



If White can checkmate Black in two moves, what is White's *first* move?

- a) ♖xb7
- b) ♖c6
- c) ♖xf5
- d) White can't checkmate Black in two moves.

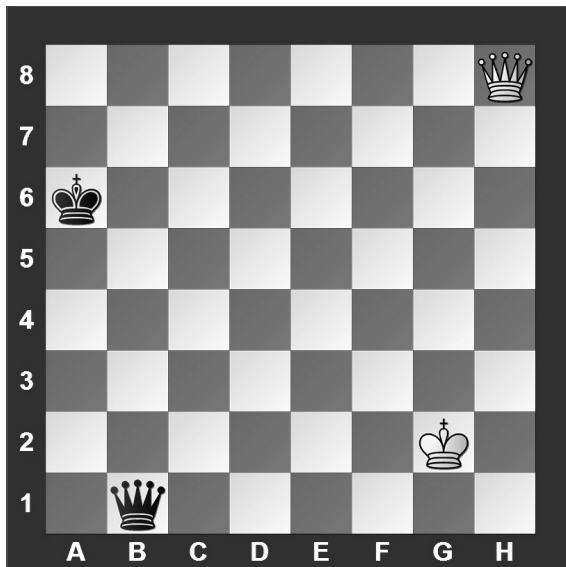
#6. White to move



What is White's best move?

- a) ♘e5
- b) ♘d5
- c) ♘g5
- d) ♘h4

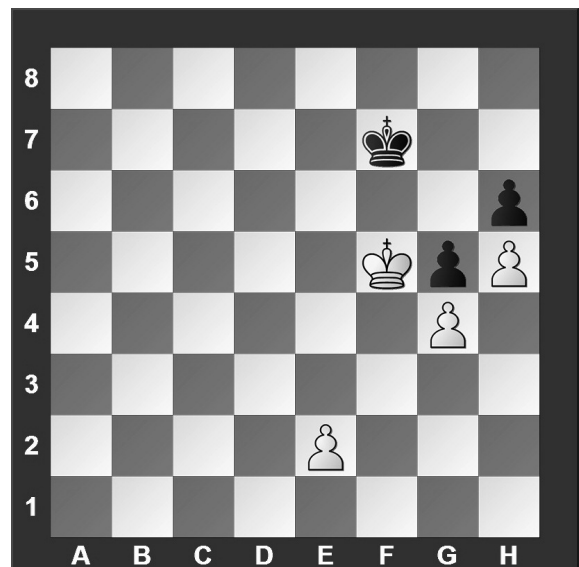
#7. White to move



What is White's best move?

- a) ♖b8
- b) ♖a1
- c) ♖a8
- d) ♖f6

#8. White to move



With best play what is the outcome of the game?

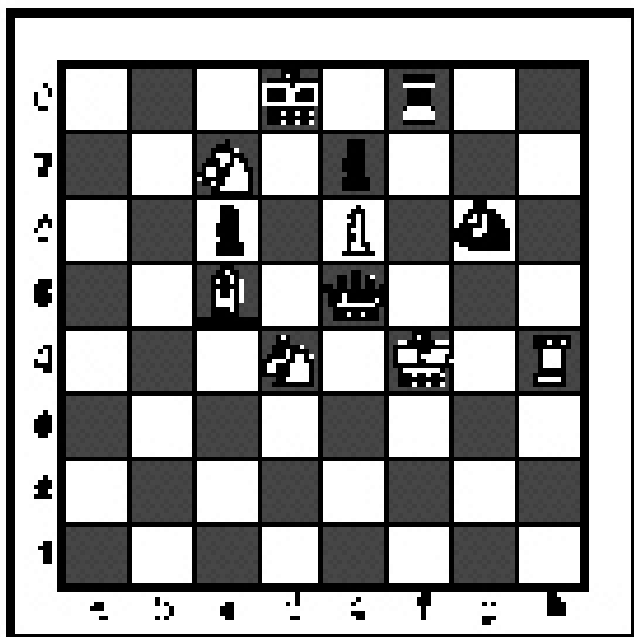
- a) White wins.
- b) Draw.
- c) Black wins.
- d) It is not possible to tell.

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 2 & 3

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How to read and answer questions on this test

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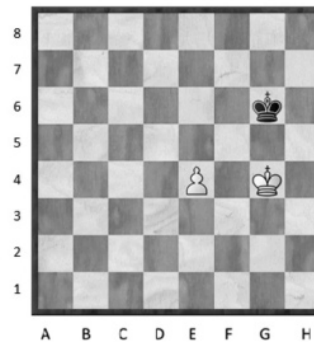


| Piece Names | Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation) |
|-------------|------------------------------------------------------------------------------------------------|
| King | |
| Queen | |
| Rook | |
| Bishop | |
| Knight | |
| Pawn | a-h (We write the file it's on.) |

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At right are two sample moves.

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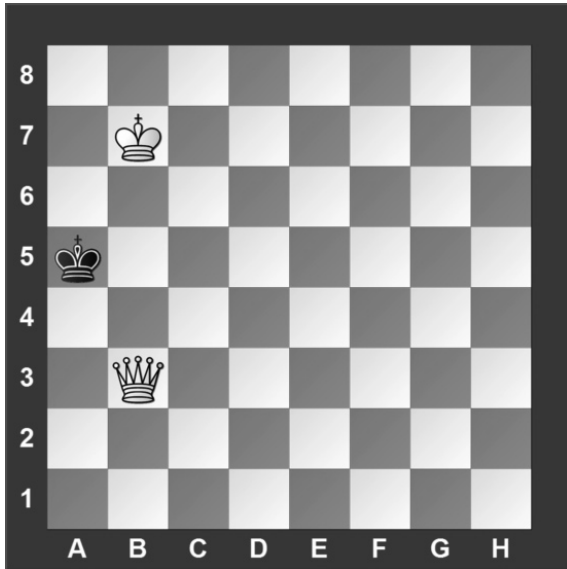


White has just played **e4**.



Black has just played ... **Nf6**.

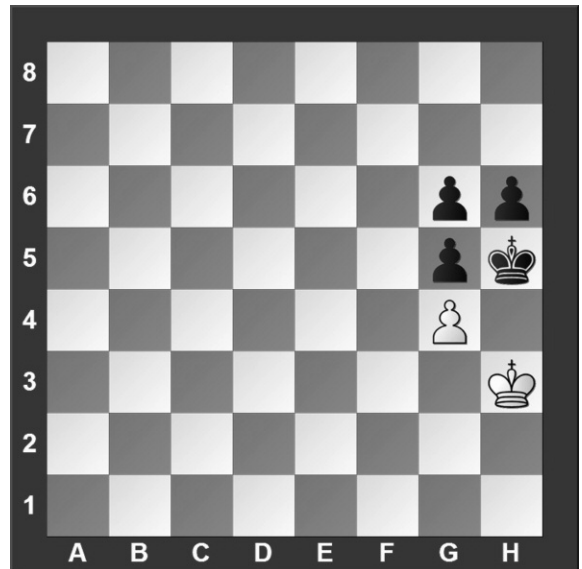
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

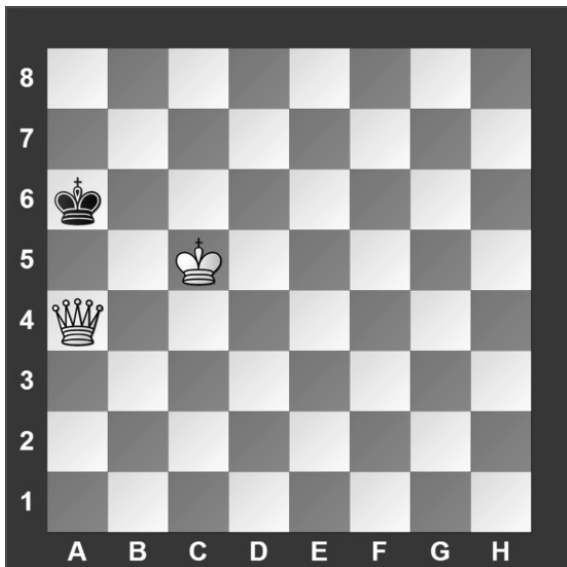
#2. Black to move



What best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

#3. Black to move



What term best describes this situation?

- a) Black is in check.
- b) Black is in stalemate.
- c) Black is in checkmate.
- d) None of the above.

#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

#5. White to move



Which move is possible for White?

- a) Short Castle.
- b) Long Castle.
- c) To capture the bishop.
- d) To capture the knight.

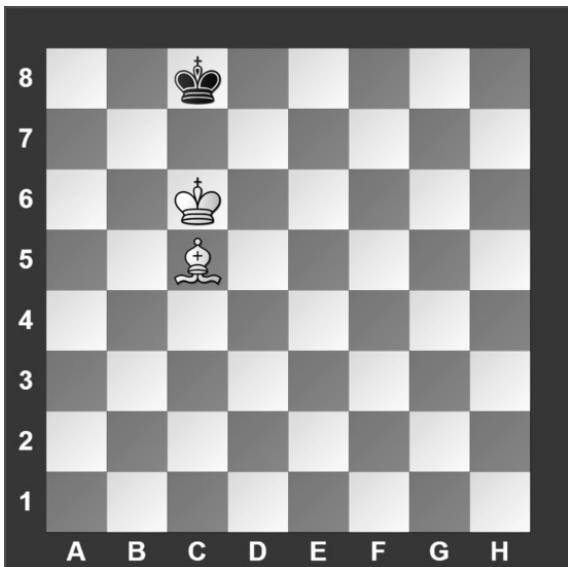
#6. White to move



Which move below is possible for White?

- a) Short Castle
- b) Long Castle
- c) Capture the queen
- d) All of the above

#7. White to move



What is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

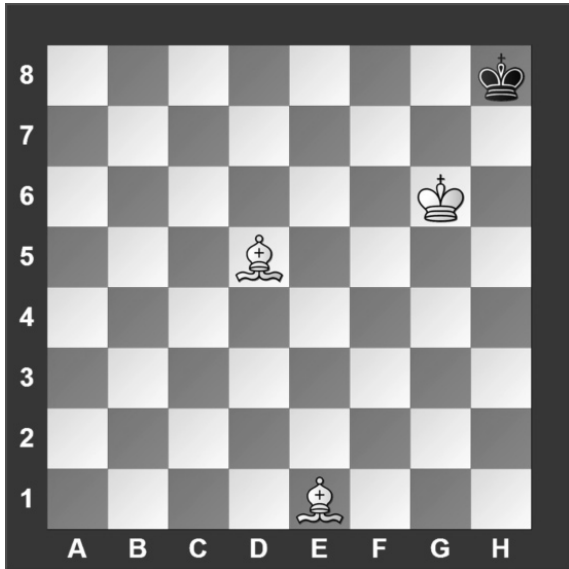
#8. White to move



What is White's best move?

- a) ♖xf7
- b) ♖e8
- c) ♖f5
- d) g3

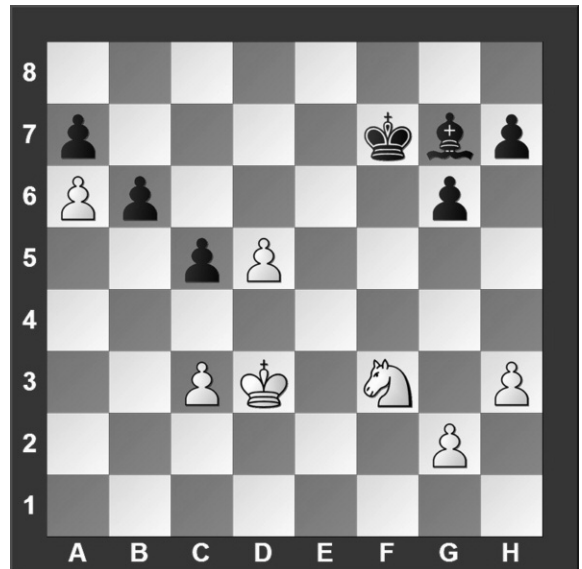
#9. White to move



What is White's best move?

- a) Qf7
- b) Qb3
- c) Qc3
- d) Qh6

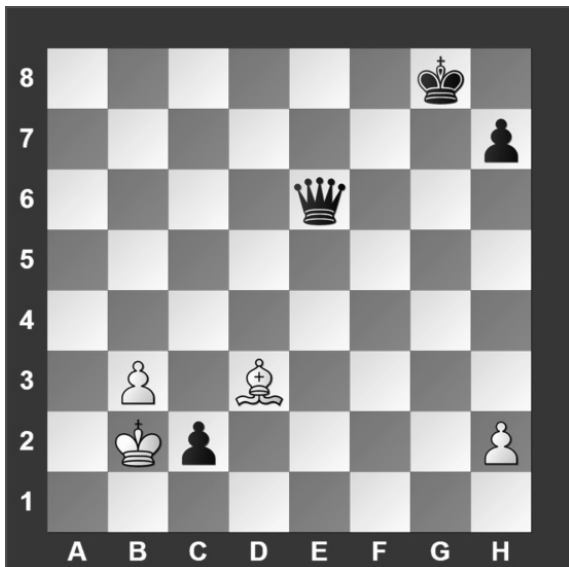
#10. White to move



Black just played c7 to c5. Which pawn can be captured?

- a) Black's a-pawn.
- b) Black's b-pawn.
- c) Black's c-pawn.
- d) White can't capture a pawn.

#11. White to move



What is White's best move?

- a) Qxc2
- b) Qc4
- c) Qxh7
- d) Qxc2

#12. Black to move



What is Black's best move?

- a) Nxf3
- b) Nd3
- c) Nxc4
- d) Nd4

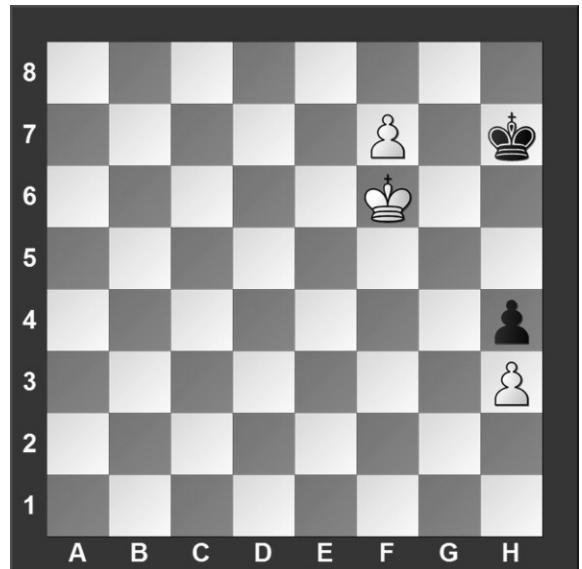
#13. White to move



If White can checkmate Black in one move, what is the checkmating move?

- a) ♖×g8
- b) ♖×g7
- c) ♖f8
- d) ♗×g7

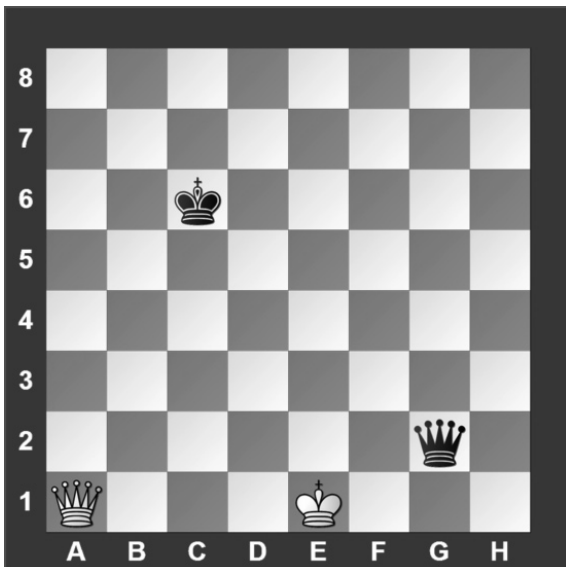
#14. White to move



Which piece should White promote to?

- a) Queen
- b) Rook
- c) Knight
- d) Bishop

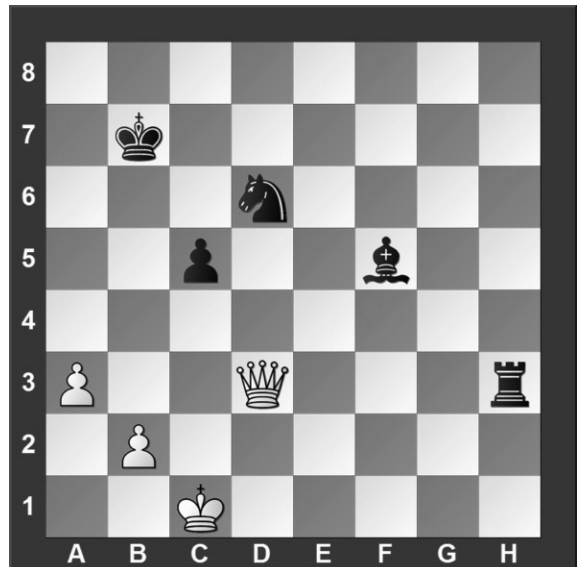
#15. White to move



What is White's best move?

- a) ♔f6
- b) ♔c3
- c) ♔c1
- d) ♔a8

#16. White to move



What is White's best move?

- a) Capture the bishop.
- b) Capture the rook.
- c) Capture the knight.
- d) None of the above.



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Spring District — Grades 2 & 3**

ANSWER KEY

Test

- | | |
|------|-------|
| 1. B | 11. B |
| 2. A | 12. B |
| 3. A | 13. D |
| 4. A | 14. B |
| 5. D | 15. D |
| 6. C | 16. C |
| 7. C | |
| 8. C | |
| 9. C | |
| 10.C | |

Tiebreaker

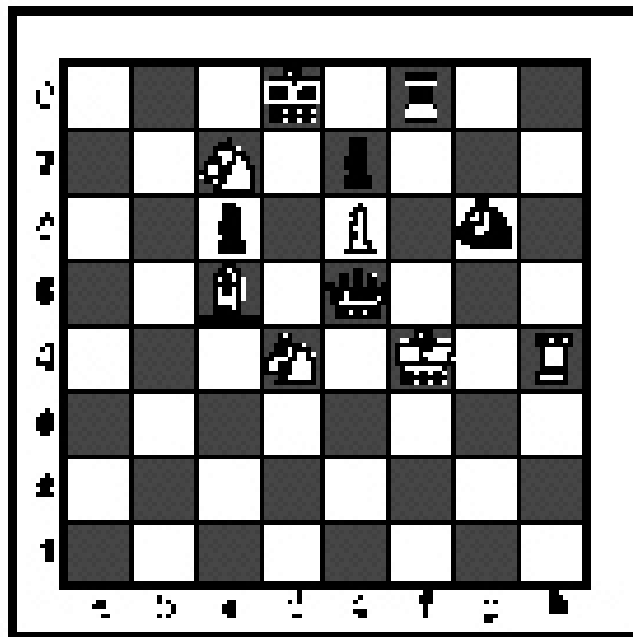
- | | |
|------|------|
| 1. C | 5. A |
| 2. A | 6. C |
| 3. C | 7. C |
| 4. D | 8. B |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 4 & 5

**DO NOT OPEN TEST
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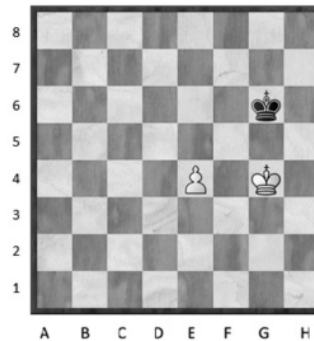


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| King | |
| Queen | |
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| Pawn | a-h (We write the file it's on.) |

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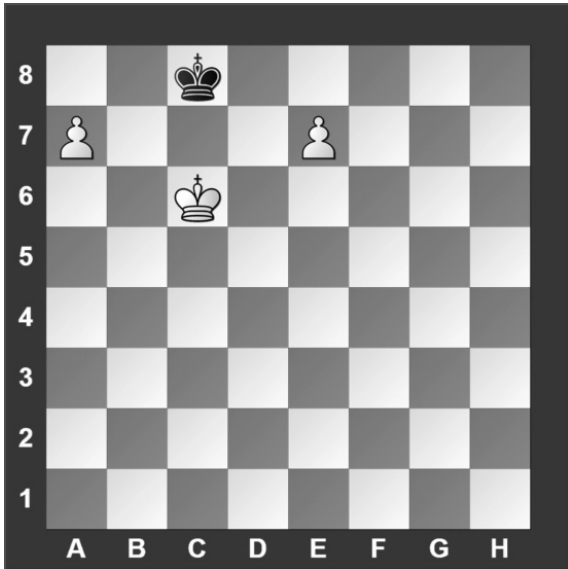


White has just played **e4**.



Black has just played ... **Nf6**.

#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

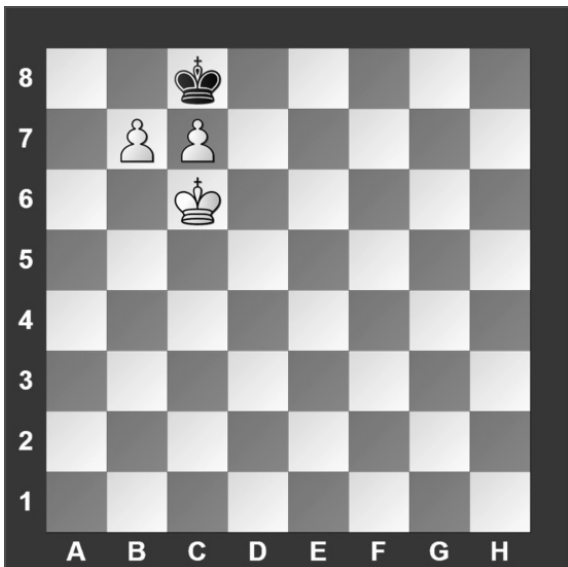
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

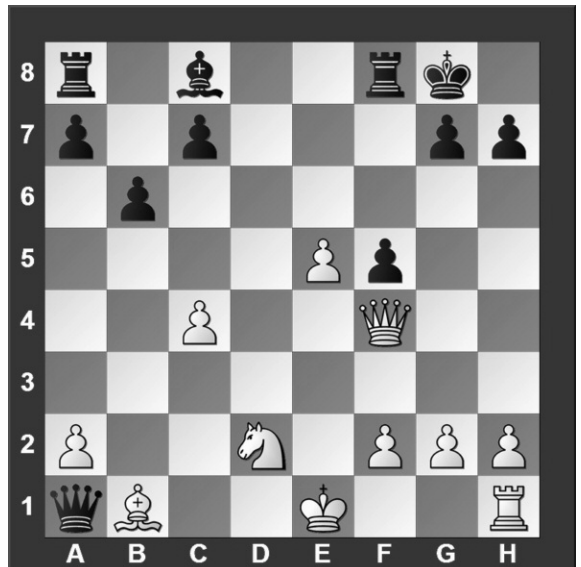
#3 Black to move.



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

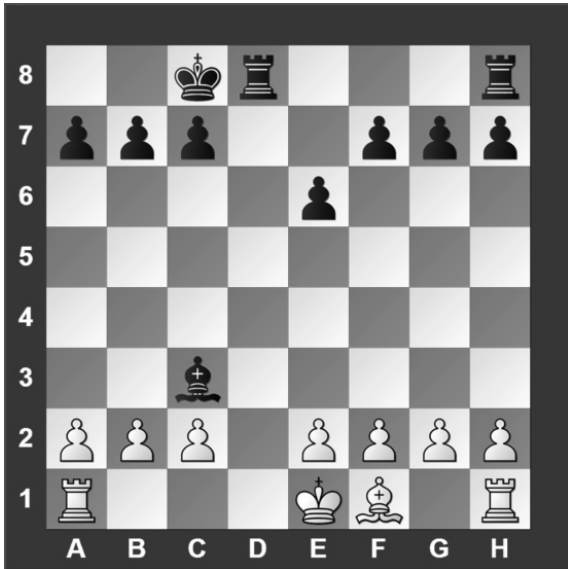
#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even.
- d) It's not possible to tell without knowing who is to move.

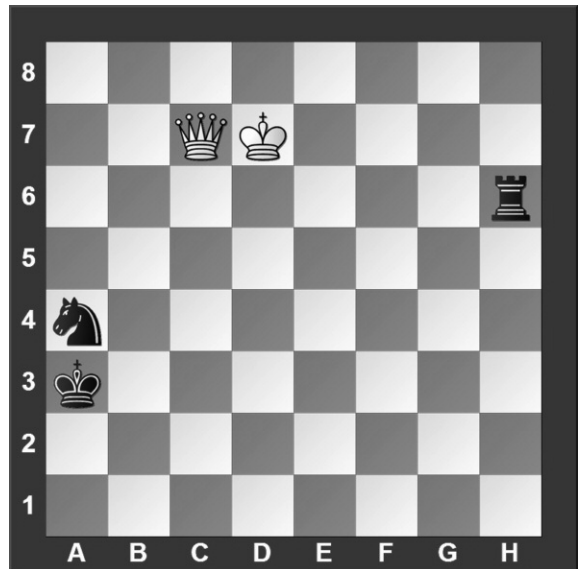
#5. White to move



Which move below is possible for White?

- a) Short Castle .
- b) Long Castle.
- c) Capture the Bishop.
- d) Move the King

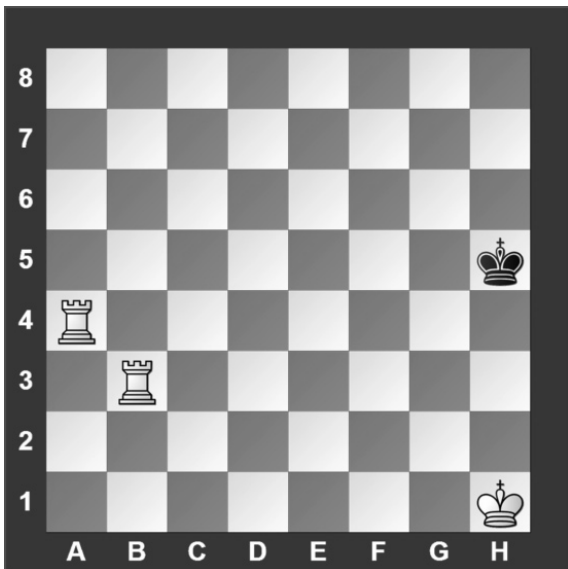
#6. White to move



What is White's best move?

- a) ♔d6
- b) ♔c3
- c) ♔c5
- d) ♔c1

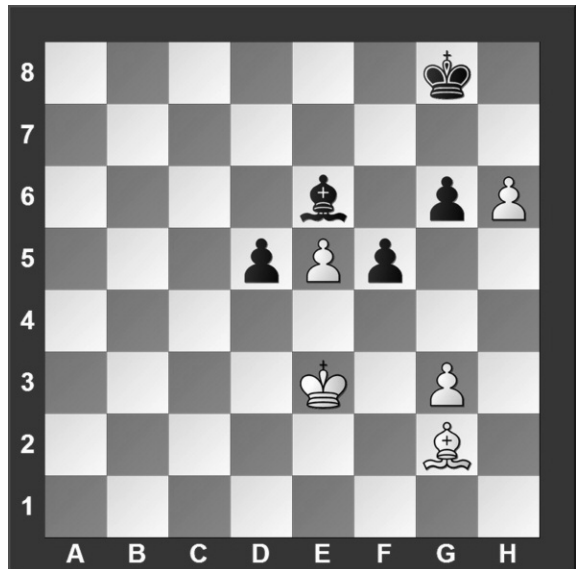
#7. White to move



How many moves does it take to check-mate Black?

- a) 1
- b) 2
- c) 3
- d) 4

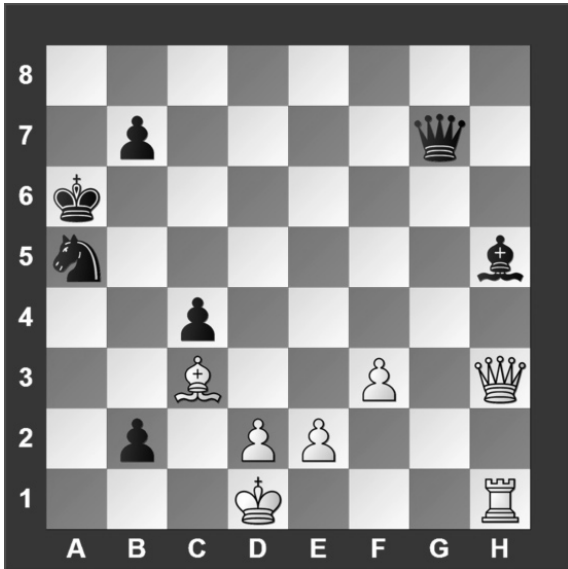
#8. White to move



Black just played d7 to d5. Which pawn can be captured by en passant rule?

- a) Black's d-pawn
- b) Black's f-pawn
- c) Black's g-pawn
- d) White can't capture a pawn.

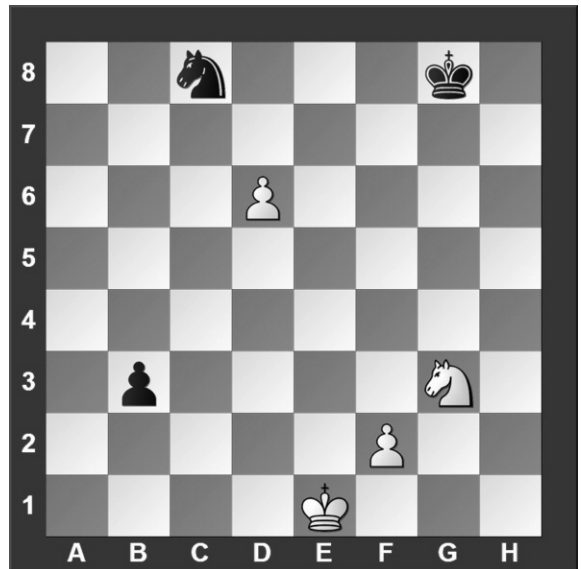
#9. White to move



What piece should White capture?

- a) Queen
- b) Bishop
- c) Knight
- d) Pawn

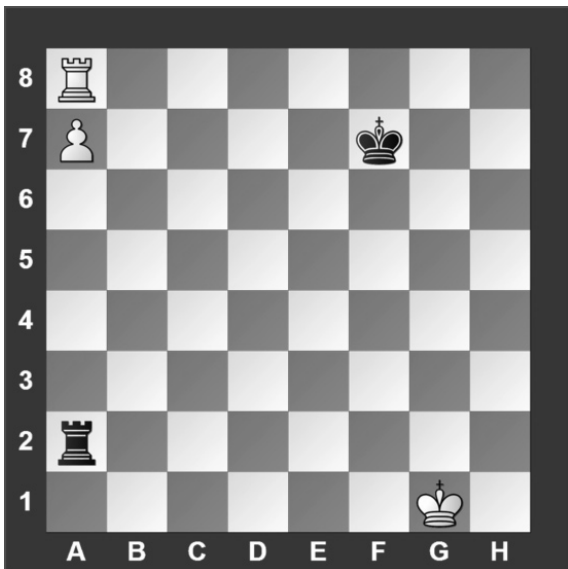
#10. White to move



What is White's best move?

- a) ♔d2
- b) ♘e4
- c) ♘e2
- d) d7

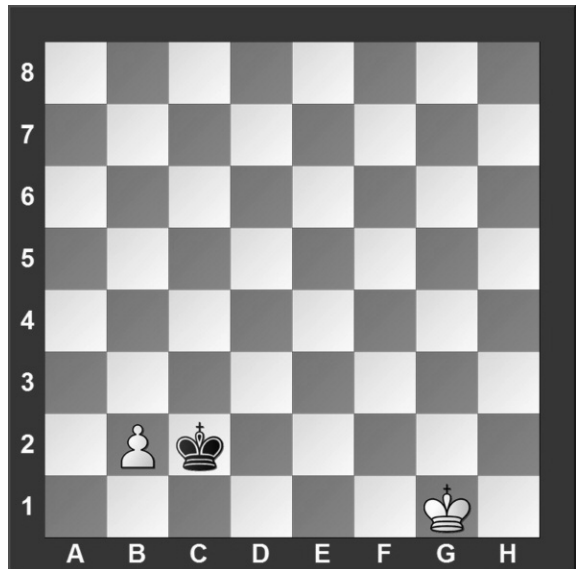
#11. White to move



What is White's best move?

- a) ♖d8
- b) ♖f8
- c) ♖h8
- d) ♔h1

#12. White to move



If White to move, what is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) It is a draw.
- d) It is not possible to tell.

#13. White to move



What is White's best move?

- a) ♖c7
- b) ♖b6
- c) ♖xc3
- d) ♖xe7

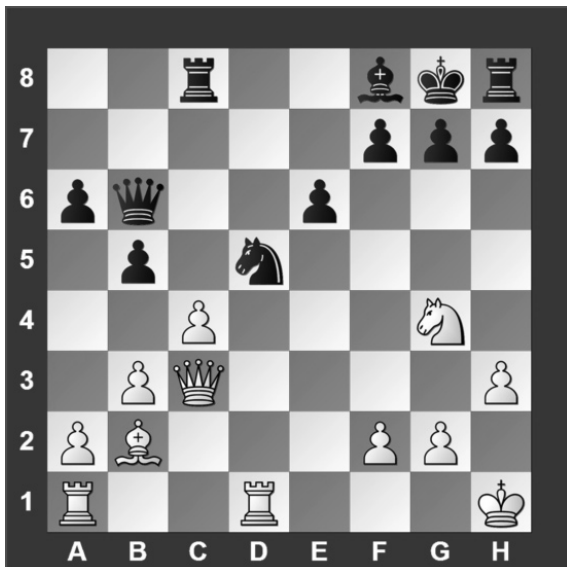
#14. Black to move



If Black can checkmate White in two moves, what is the *first* move?

- a) ♔xf7
- b) ♖h1
- c) ♖xg2
- d) ♖e7

#15. White to move



What is White's best move?

- a) ♔xg7
- b) ♖h6
- c) cxd5
- d) ♖xd5

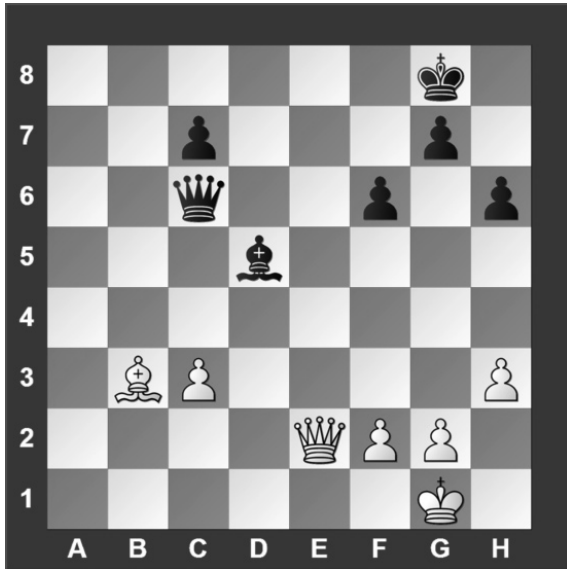
#16. White to move



What is White's best move?

- a) dxc6
- b) ♖xc6
- c) ♖xc6
- d) ♖xc7

#17. White to move



What is White's best move?

- a) ♔e6
- b) ♔c4
- c) ♔a6
- d) ♔e4

#18. White to move



What is White's best move?

- a) ♔xb8
- b) ♔xb5
- c) ♗xb5
- d) ♔xe6

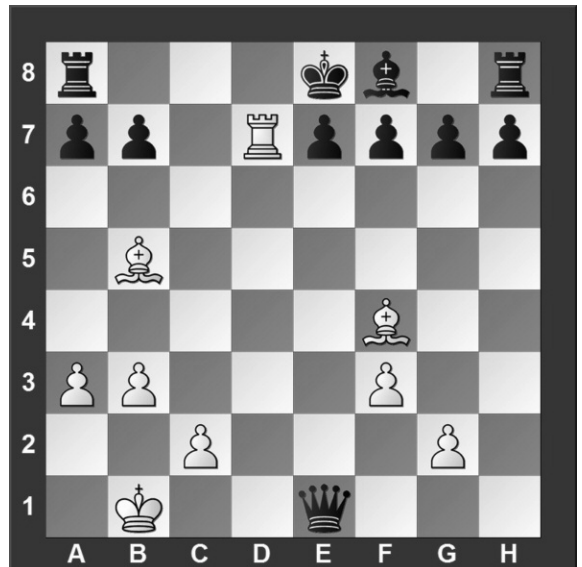
#19. White to move



If White can checkmate Black in three moves, what's the *first* move?

- a) ♔xd7
- b) ♔xh7
- c) ♖g1
- d) ♔h6

#20. White to move



What is White's best move?

- a) ♔b2
- b) ♔a2
- c) ♗c1
- d) ♖d1



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Spring District — Grades 4 & 5**

ANSWER KEY

Test

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|-------|-------|
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| 2. C | 12. A |
| 3. A | 13. A |
| 4. B | 14. C |
| 5. C | 15. B |
| 6. D | 16. A |
| 7. D | 17. D |
| 8. A | 18. A |
| 9. D | 19. B |
| 10. D | 20. D |

Tiebreaker

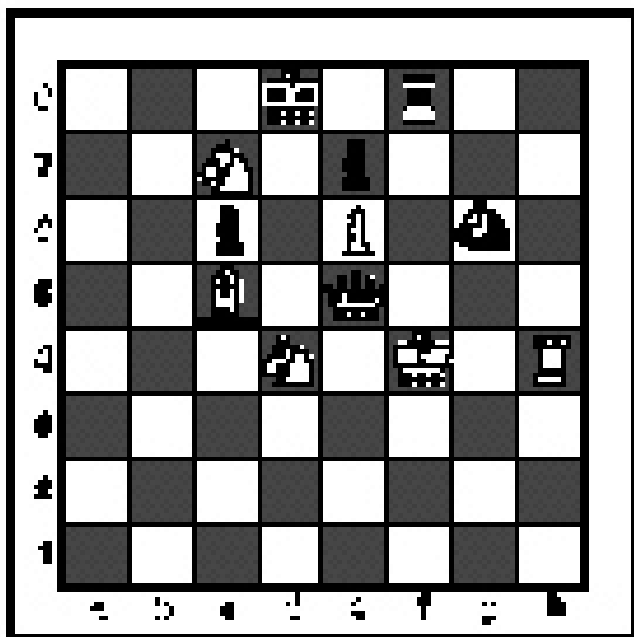
- | | |
|------|------|
| 1. C | 5. A |
| 2. A | 6. C |
| 3. C | 7. C |
| 4. D | 8. B |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 6, 7, 8

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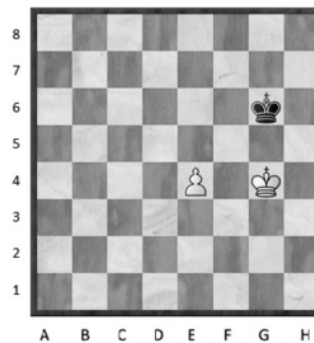


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| Bishop | |
| Knight | |
| Pawn | a-h (We write the file it's on.) |

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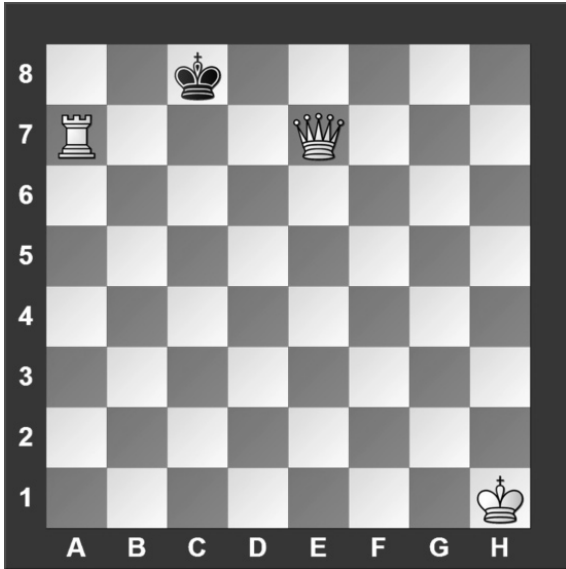


White has just played **e4**.



Black has just played ... **Nf6**.

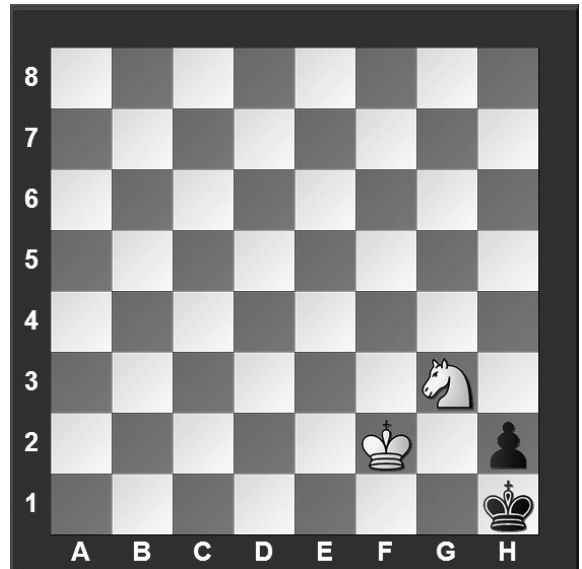
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

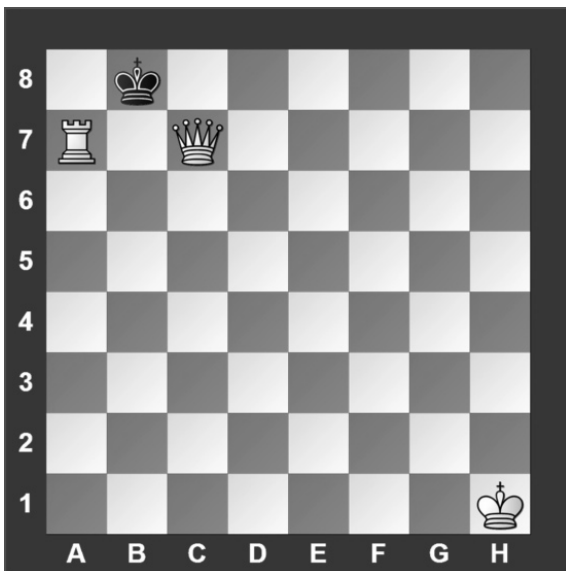
#2. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

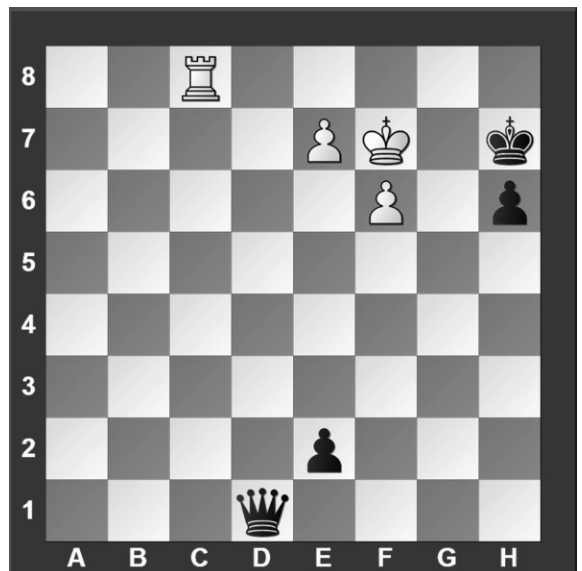
#3. Black to move



What term best describes this situation?

- a) Black is in checkmate.
- b) Black is in stalemate.
- c) Black is in check.
- d) None of the above.

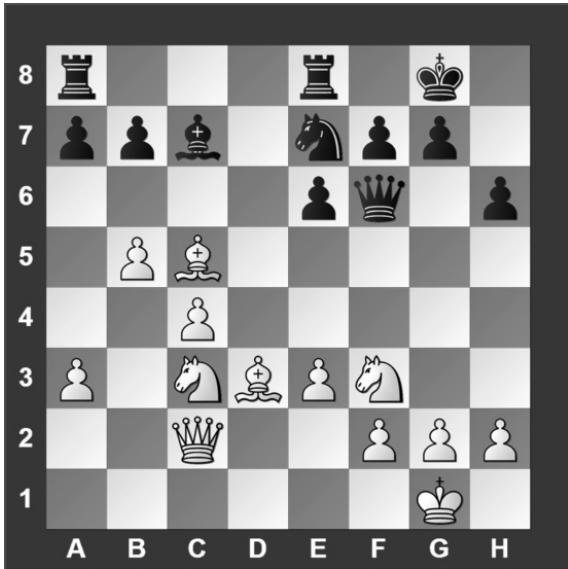
#4. White to move



What is White's best move?

- a) e8 = ♔
- b) e8 = ♖
- c) e8 = ♘
- d) ♖h8

#5.



Which side has material advantage?

- a) White
- b) It is even.
- c) Black
- d) It is not possible to tell.

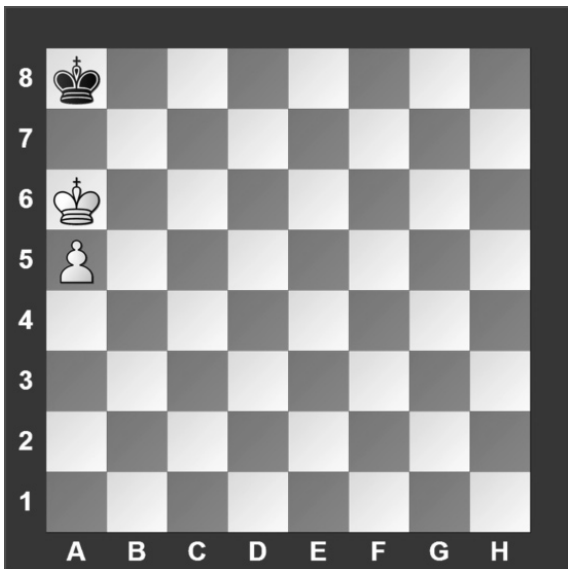
#6. Black to move



Which move is possible for Black?

- a) Short Castle.
- b) Long Castle.
- c) Capture the Knight
- d) All of the above

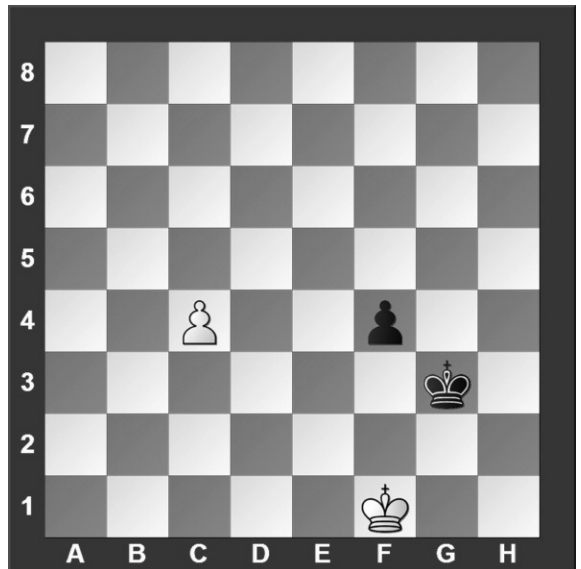
#7. White to move



What is the outcome of the game?

- a) White wins
- b) Black wins
- c) Draw
- d) Impossible to tell

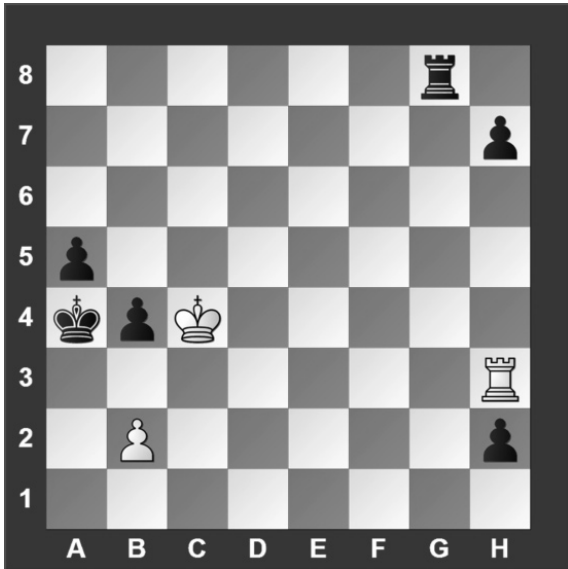
#8. Black to move



What is the outcome of the game with the best play?

- a) White wins.
- b) Black wins.
- c) It is a draw.
- d) It is not possible to tell.

#9. White to move



White can checkmate Black in two moves, what's the *first* move?

- a) b3
- b) ♖×h7
- c) ♕a3
- d) ♖×h2

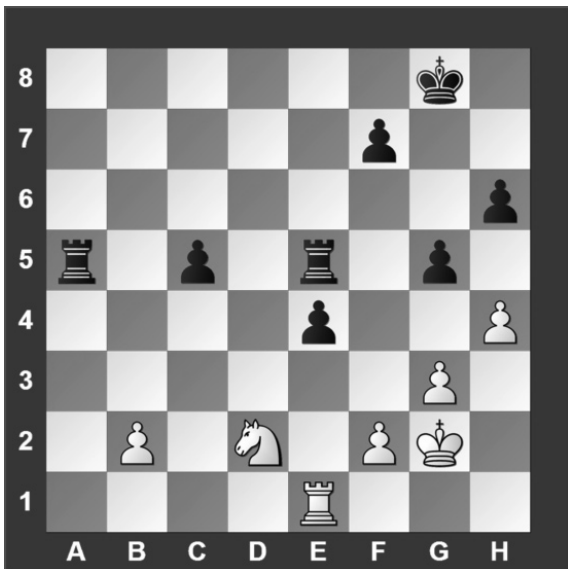
#10. White to move



What is White's best move?

- a) ♖×d8
- b) ♖×c7
- c) ♖h7
- d) b3

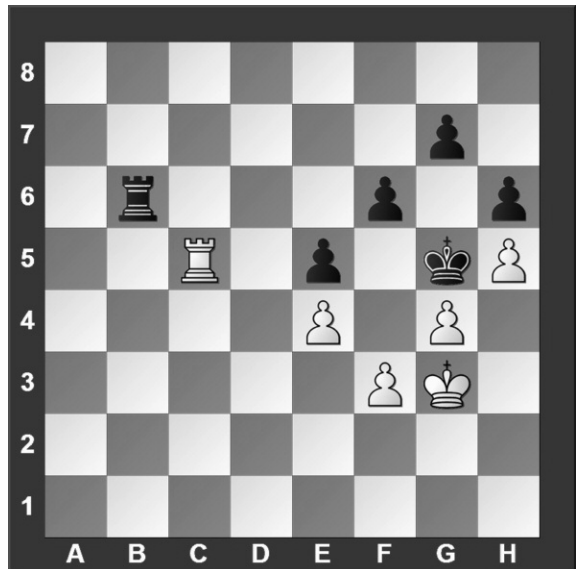
#11. White to move



What is White's best move?

- a) ♘×e4
- b) ♘c4
- c) ♖×e4
- d) ♘b3

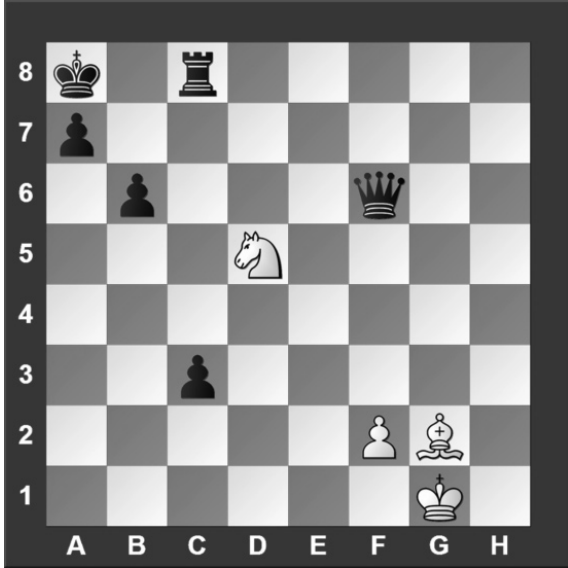
#12. White to move



What is White's best move?

- a) ♖×e5
- b) f4
- c) ♖c7
- d) ♔h3

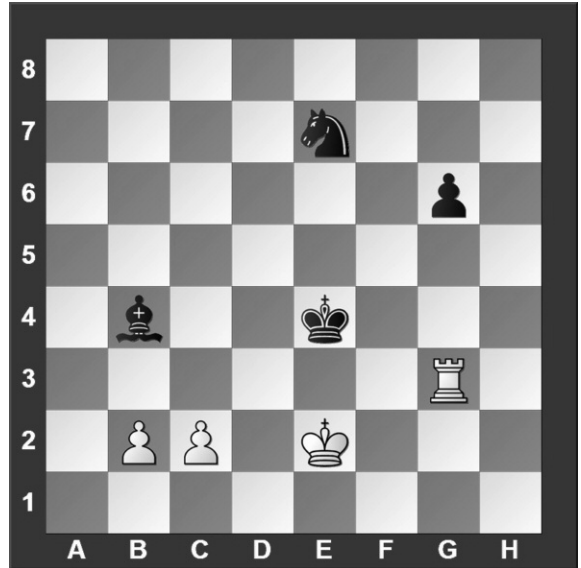
#13. White to move



White can checkmate Black in two moves, what is the *first* move?

- a) ♖×f6
- b) ♖×b6
- c) ♖c7
- d) ♖b4

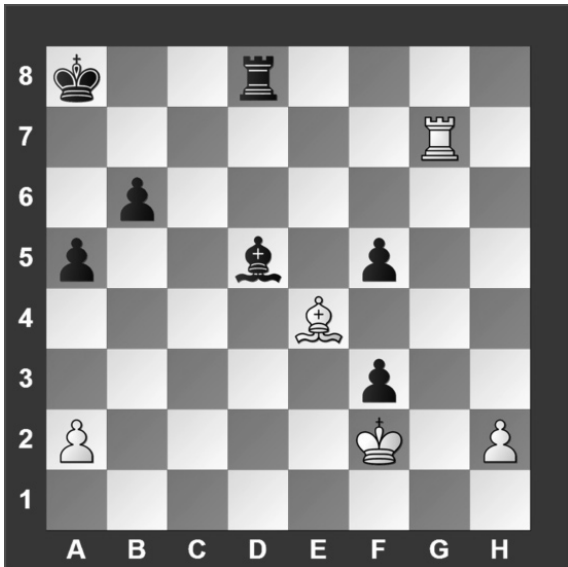
#14. White to move



What is White's best move?

- a) ♖e3
- b) ♖g4
- c) ♖×g6
- d) c3

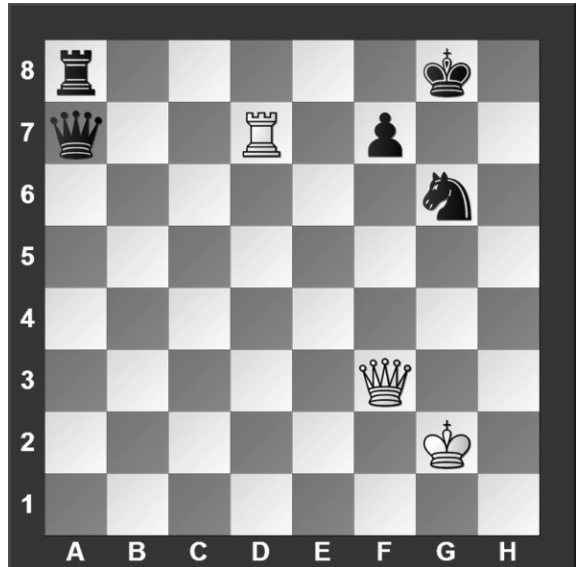
#15. White to move



What is White's best move?

- a) ♕×d5
- b) ♕×f5
- c) ♖g8
- d) ♕×f3

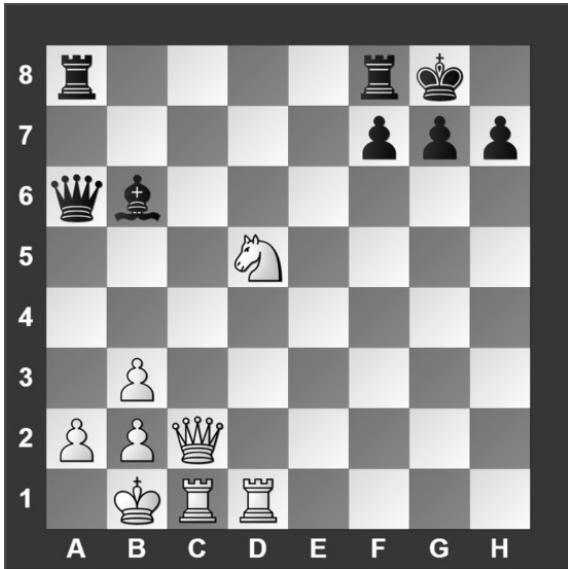
#16. White to move



What is White's best move?

- a) ♖×a7
- b) ♖×f7
- c) ♗×a8
- d) ♗×f7

#17. White to move



White can checkmate Black in three moves, what is the *first* move?

- a) ♘e7
- b) ♔xh7
- c) ♘f6
- d) ♖g1

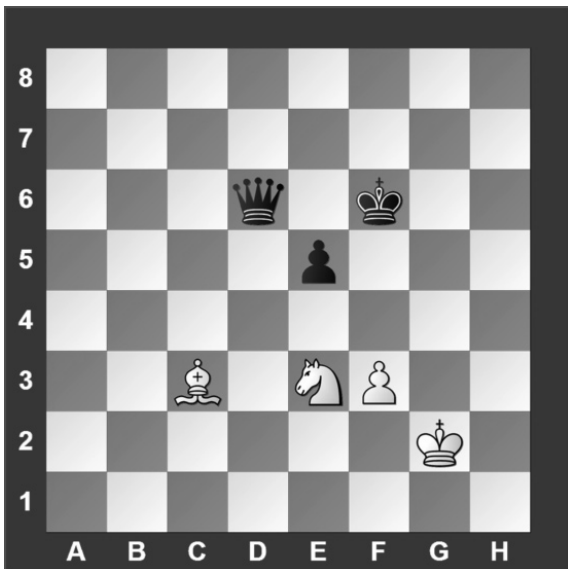
#18. White to move



How many moves should it take to checkmate Black in this position?

- a) One
- b) Two
- c) Three
- d) Four

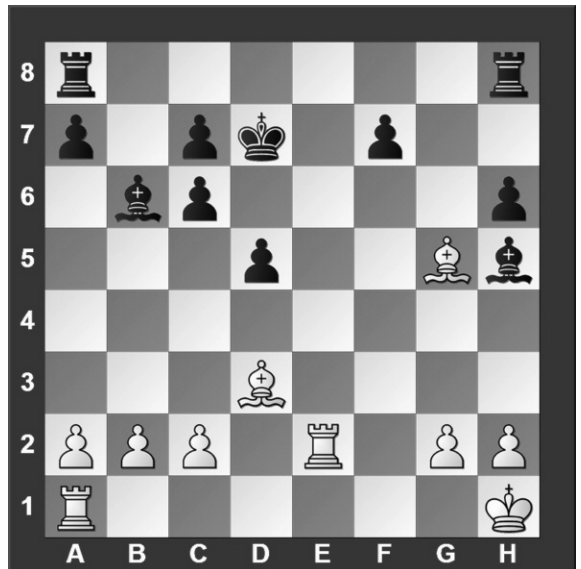
#19. White to move



What is White's best move?

- a) ♘g4
- b) ♙x e5
- c) f4
- d) ♘c4

#20. White to move



If White can force checkmate in two moves, what's the *final* move?

- a) ♙f5
- b) ♙e7
- c) ♖e6
- d) ♖e7



**University Interscholastic League
A+ Chess Puzzle Contest
2021-2022 Spring District — Grades 6, 7, and 8
ANSWER KEY**

Test

- | | |
|-------|-------|
| 1. D | 11. B |
| 2. A | 12. B |
| 3. A | 13. C |
| 4. D | 14. B |
| 5. C | 15. C |
| 6. B | 16. D |
| 7. C | 17. A |
| 8. C | 18. B |
| 9. C | 19. B |
| 10. C | 20. B |

Tiebreaker

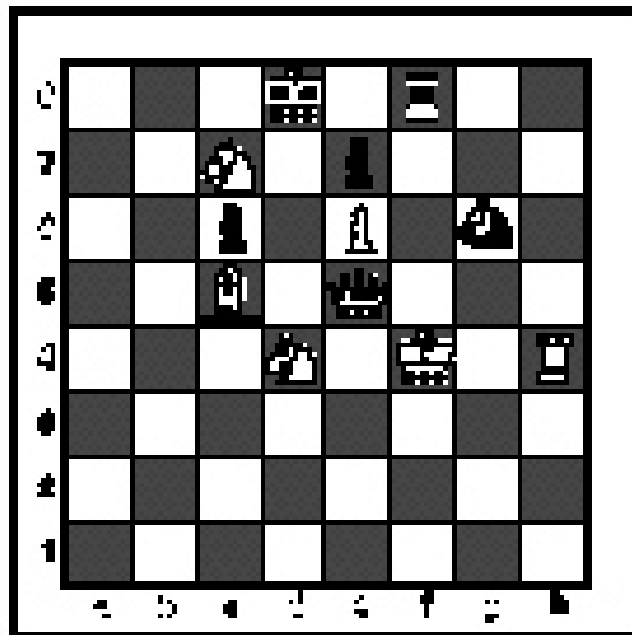
- | | |
|------|------|
| 1. C | 5. A |
| 2. A | 6. C |
| 3. C | 7. C |
| 4. D | 8. B |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the tiebreaker test for all the grades competing in the Spring District UIL Chess Puzzle Solving Test.

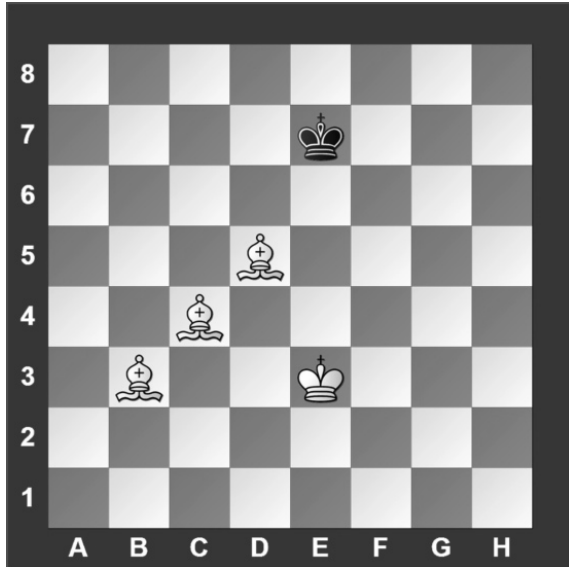
Use the separate answer sheet to write all of your answers.

You have five (5) minutes to complete this part of the test. There are eight (8) questions. Some of the questions will be difficult.

For each correct answer, you earn one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!

#1. White to move



What should be the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

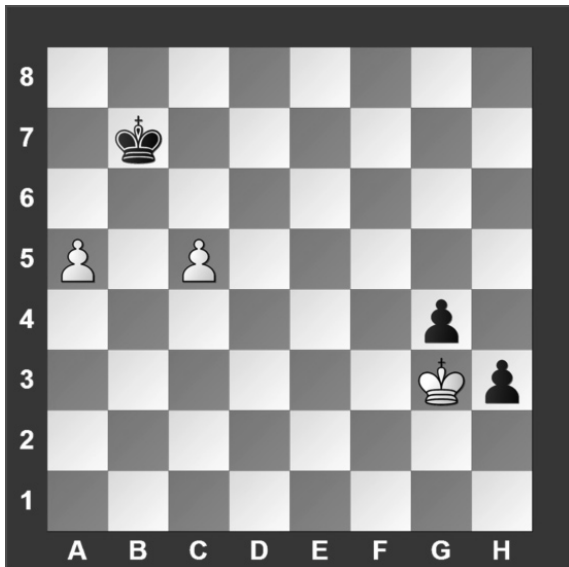
#2. White to move



If White can force checkmate in three-moves, what is White's *first* move?

- a) ♔f8
- b) ♖d6
- c) ♜d8
- d) ♘e6

#3. White to move



With the best play, what is the outcome of the game?

- a) White wins.
- b) Black wins.
- c) Draw.
- d) It is not possible to tell.

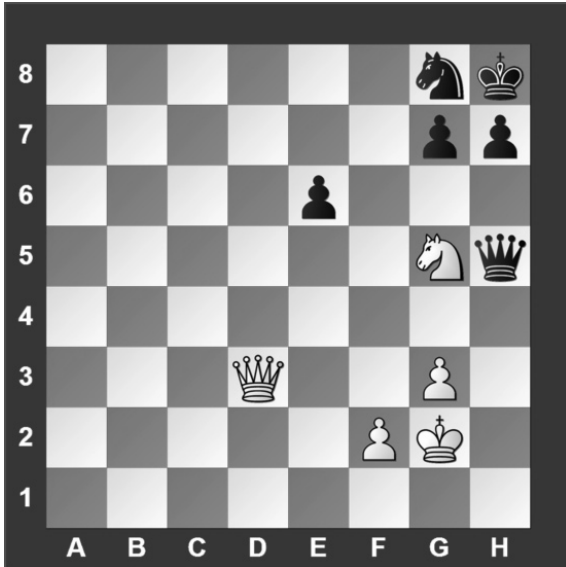
#4. White to move



If White can checkmate Black in two moves, what is White's *first* move?

- a) ♕b7
- b) ♔d5
- c) ♜x d8
- d) ♜x a7

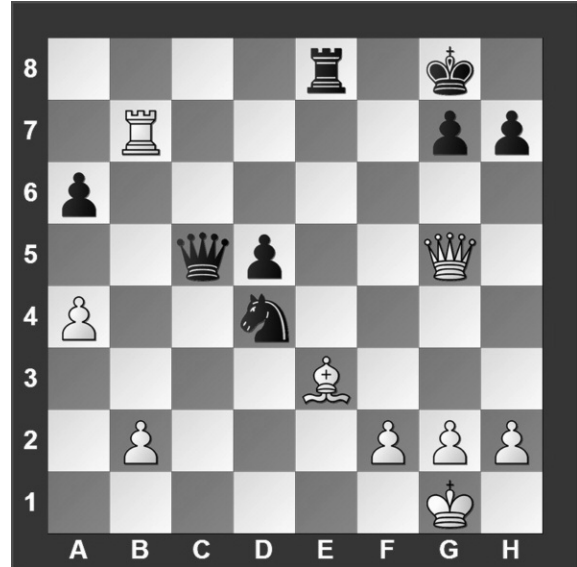
#5. White to move



If White can checkmate Black in two moves, what is White's *first* move?

- a) ♔xh7
- b) ♖f7
- c) ♖x e6
- d) White can't checkmate Black in two moves.

#6. Black to move



If Black can checkmate in two moves, what is Black's first move?

- a) ♜e6
- b) ♜f3
- c) ♔c1
- d) ♜e2

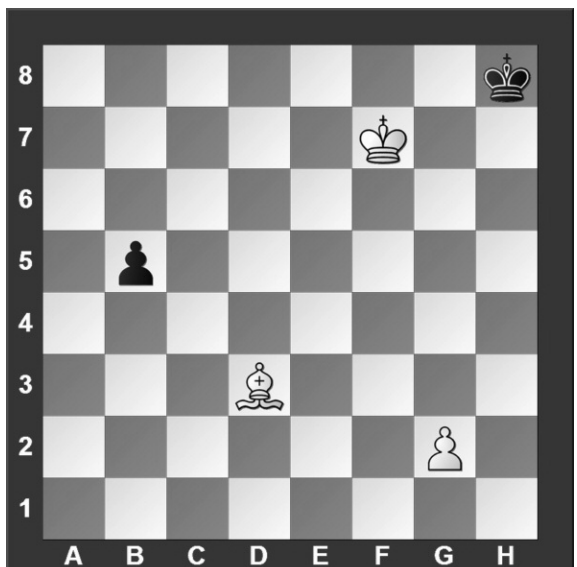
#7. White to move



If White can checkmate Black in two moves, what is White's *second* move?

- a) ♔xb7
- b) ♖c7
- c) ♖xc8
- d) ♗xb7

#8. White to move



How many moves should it take to check-mate Black in this position?

- a) Three.
- b) Four.
- c) Five.
- d) White can't checkmate Black.

Contestant Number _____

Contestant Name _____
(to be filled in after judging)

UIL A+ Creative Writing Evaluation Sheet

Elementary

Evaluation criteria are listed in the order of importance. Circle score rating in each of the three major areas of *creativity & interest*, *organization*, and *correctness of style* and tally the points.

(60%) 1 2 3 4 5 6 7 8 9 10 11 12

CREATIVITY & INTEREST Interest depends primarily upon substance. It depends next upon clarity and upon including specific details and examples, which individualize the story as an outgrowth of the writer's character and experience.

(30%) 1 2 3 4 5 6

Organization A well-organized story will present ideas in a logical and coherent manner.

(10%) 1 2

Correctness of Style Grammatical correctness of style includes avoiding errors in sentence structure, punctuation, grammar, spelling and word usage.

TOTAL SCORE: _____/20

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT

Please read "Instructions for the Judges" before evaluating second grade Creative Writing contestants' papers. Please make your comments using language understandable to the contestant and make all comments constructive and supportive. While judges are to consider all three elements in selecting the most effective compositions, they should weigh creativity and interest more than organization, and organization more than correctness of style.

Judge's signature _____



A+ Creative Writing Contest

INVITATIONAL

GRADE 2

2021-2022

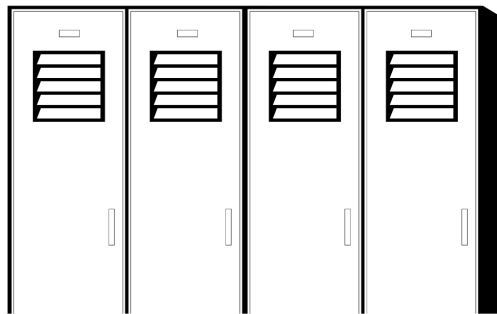
Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.



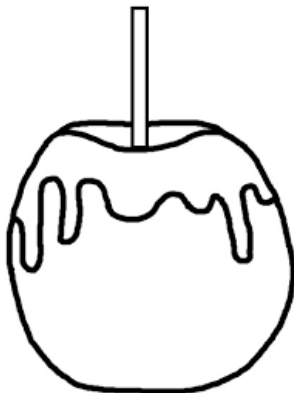
headphones



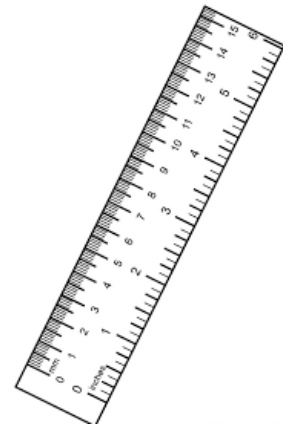
sloth



locker



candy apple



ruler



A+ Creative Writing Contest

FALL/WINTER DISTRICT

GRADE 2

2021-2022

Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.



fishing



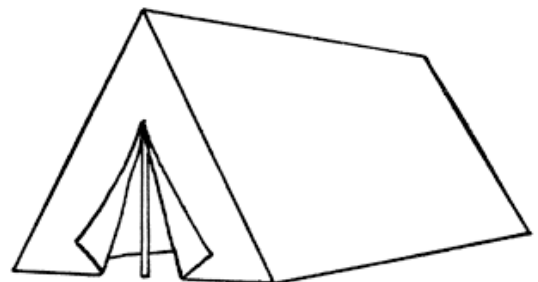
ruby



monster truck



palm tree



tent



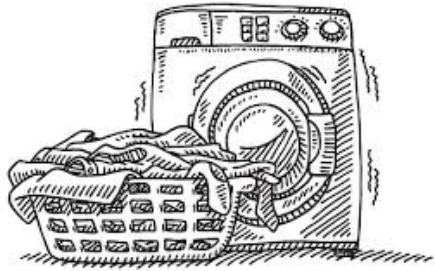
A+ Creative Writing Contest

SPRING DISTRICT

GRADE 2

2021-2022

Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.



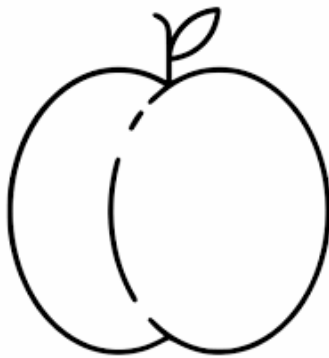
laundry



puppet show



soda can



peach



balloons

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 120. Initials _____

_____ out of 120. Initials _____

Papers contending to place:

_____ out of 120. Initials _____



**University Interscholastic League
A+ Dictionary Skills Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 5 6 7 8

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

11. A B C D

12. A B C D

13. A B C D

14. A B C D

15. A B C D

16. A B C D

17. A B C D

18. A B C D

19. A B C D

20. A B C D

21. A B C D

22. A B C D

23. A B C D

24. A B C D

25. A B C D

26. A B C D

27. A B C D

28. A B C D

29. A B C D

30. A B C D

31. A B C D

32. A B C D

33. A B C D E F G H

34. A B C D E F G H

35. A B C D E F G H

36. A B C D E F G H

37. A B C D E F G H

38. A B C D E F G H

39. A B C D E F G H

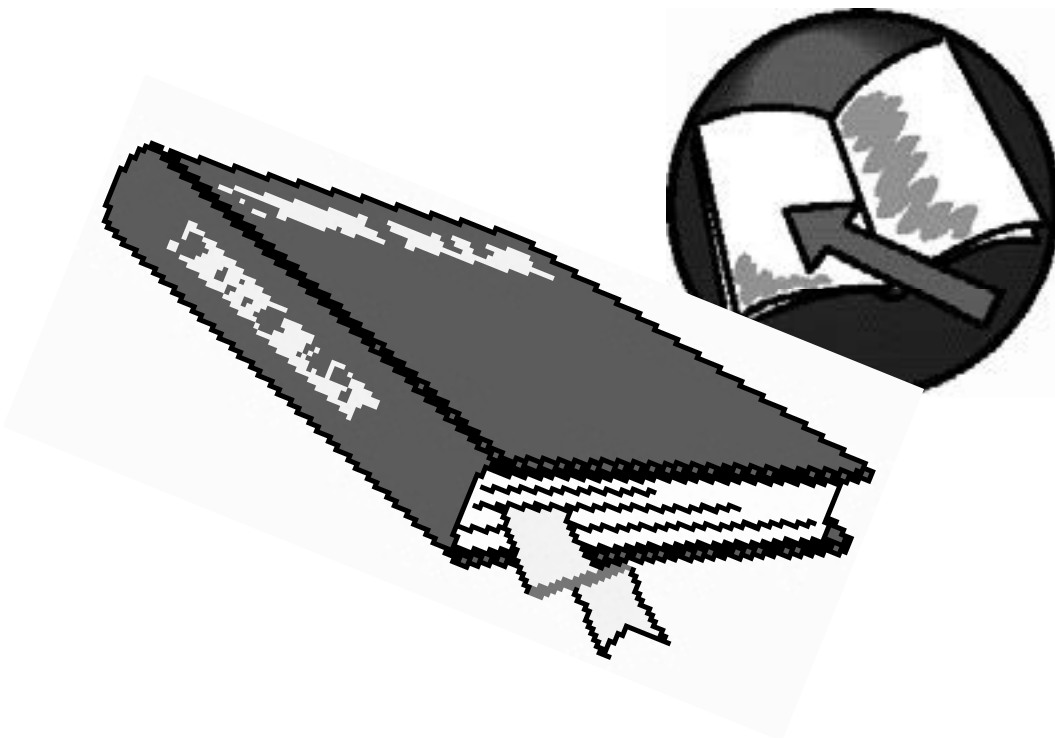
40. A B C D E F G H

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

**University Interscholastic League
2021-22 Dictionary Skills Contest
Invitational District Test — Grades 5 & 6**

1. What is the name of the Northern group of stars between Taurus and Cassiopeia?
A. Milky Way
B. Nadir
C. Perseus
D. Pleiades
2. What color spots does a spotted turtle have?
A. Yellow
B. Blue
C. Black
D. Orange
3. What two states did Creek Members mostly occupy?
A. Texas and New Mexico
B. Utah and Nevada
C. Alabama and Georgia
D. New York and Vermont
4. Which of the following animals is related to the llama and alpaca?
A. Dromedary
B. Vicuna
C. Wallaby
D. Tapir
5. A seminary is a school for training all of the following **EXCEPT**?
A. Rabbis
B. Priests
C. Ministers
D. Officiants
6. How many Kilometers is the Guadalquivir River?
A. 408 km
B. 656 km
C. 302 km
D. 565 km
7. What type of insect is a dipteran?
A. Fly
B. Beetle
C. Ant
D. Butterfly
8. How many days is Kwanza Celebrated?
A. 5 days
B. 8 days
C. 4 Days
D. 7 Days
9. What year did Oliver Cromwell become lord protector of England?
A. 1626
B. 1599
C. 1658
D. 1653

10. Where is one most likely to hear a dirge?
 A. Graduation Ceremony
 B. Birthday Party
 C. Funeral
 D. Softball Game
11. In Middle English, which of the following word meant “the track or trail left by and animal or person”?
 A. Myrrh
 B. Freebooter
 C. Sleuth
 D. Demitasse
12. Where is Montezuma’s revenge contacted?
 A. Switzerland
 B. Mexico
 C. China
 D. Canada
13. What ocean is Diego Garcia island located in?
 A. Indian Ocean
 B. Atlantic Ocean
 C. Pacific Ocean
 D. Arctic
14. What type of format is a graphic novel presented in?
 A. Comic-Strip
 B. Hieroglyphics
 C. One sided
 D. Double spaced
15. What time is someone most likely to be on dog watch?
 A. 10:30 a.m.
 B. 2:00 p.m.
 C. 11:05 p.m.
 D. 6:30 p.m.
16. How many weekdays is Lent observed for?
 A. 15
 B. 30
 C. 40
 D. 20
17. Which of the following diseases is marked by redness, itching and scaly lesions?
 A. Bronchitis
 B. Eczema
 C. Phenylketonuria
 D. Ebola
18. Who won in the Nobel Prize in 1949?
 A. Martin Luther King Jr.
 B. William Faulkner
 C. Toni Morrison
 D. Ivan Petrovich Pavlova
19. The Salk vaccine is given to prevent the spread of what disease?
 A. Polio
 B. Epilepsy
 C. Meningitis
 D. Pneumonia
20. Which of the following words could be used to describe someone with a bad temper?
 A. Invulnerable
 B. Termagant
 C. Cowardly
 D. Surly

21. What is the capital of Uganda?
A. Bismarck
B. Regina
C. Kampala
D. Charlotte Amalie
22. Who was the founder of Mormonism in 1830?
A. James Moore
B. Joseph Smith
C. Charles Mustard
D. Timothy Arnold
23. Which of the following is an ordinal number?
A. Five
B. First
C. Sixteen
D. Nine
24. What is the period of rotation for Jupiter?
A. 2.5 days
B. 11.86 hours
C. 16.11 hours
D. 9.92 hours
25. In the marines, a staff sergeant is below what ranking?
A. Gunnery Sergeant
B. Platoon Sergeant
C. Technical Sergeant
D. Assembly Sergeant
26. All of the following ingredients can be found in marzipan, **EXCEPT**?
A. Almond paste
B. Sugar
C. Baking Soda
D. Egg Whites
27. How many horizontal lines make up a staff in written music?
A. 4
B. 5
C. 6
D. 3
28. Which of the following does **NOT** use the abbreviation Sc?
A. Small capitals
B. Sound clouds
C. Scots
D. Scottish
29. What is the name of a person who is not Jewish?
A. Drake
B. Celt
C. Stringer
D. Gentile
30. What year did the U.S. government establish the social security program?
A. 1935
B. 1942
C. 1920
D. 1939
31. What is a dilettante a lover of?
A. Cooking
B. Spots
C. The arts
D. Nature

32. What attaches to the centromere during cell division?
- A. Membrane
 - B. The spindle
 - C. Cellophane
 - D. Electrodes

Match each of the following words to its correct meaning:

- | | |
|-----------------------|----------------------------------------------------|
| _____ 33. gesso | A. a plug used to stop the vent in a barrel |
| _____ 34. pleat | B. an empty space |
| _____ 35. crestfallen | C. a thickener used to make gasoline |
| _____ 36. spigot | D. a person from another country or region |
| _____ 37. vizier | E. a material like plaster used in art |
| _____ 38. vacuity | F. very sad and disappointed |
| _____ 39. outlander | G. a high official in a Muslim country |
| _____ 40. napalm | H. a fold made by doubling material over on itself |

**University Interscholastic League
2021-22 Dictionary Skills Contest
Invitational Test — Grades 5 & 6**

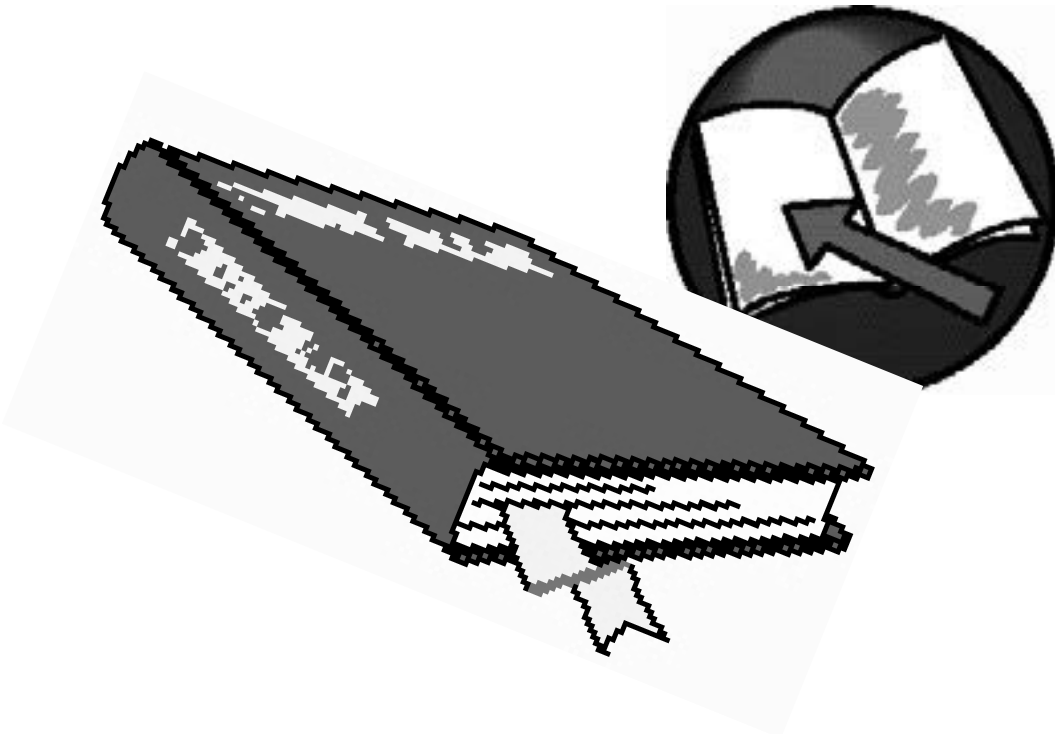
Answer Key

- | | |
|-------|-------|
| 1. C | 21. C |
| 2. A | 22. B |
| 3. C | 23. B |
| 4. B | 24. D |
| 5. D | 25. A |
| 6. B | 26. C |
| 7. A | 27. B |
| 8. D | 28. B |
| 9. D | 29. D |
| 10. C | 30. A |
| 11. C | 31. C |
| 12. B | 32. B |
| 13. A | 33. E |
| 14. A | 34. H |
| 15. D | 35. F |
| 16. C | 36. A |
| 17. B | 37. G |
| 18. B | 38. B |
| 19. A | 39. D |
| 20. D | 40. C |

FALL/WINTER DISTRICT 2021-2022
A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

**University Interscholastic League
2021-22 Dictionary Skills Contest
Fall/Winter District Test — Grades 5 & 6**

1. At what altitude does the ionosphere begin?
A. 50 miles
B. 20 miles
C. 30 miles
D. 70 miles
2. What part of the body would one most likely receive a rabbit punch?
A. Knee
B. Back of the neck
C. Eye
D. Temple
3. What city is the Great Mosque of Islam located in?
A. Saint Paul
B. Ankara
C. Mecca
D. Lodz
4. All of the following would be involved in the process of tempera, **EXCEPT**?
A. Oil
B. Egg
C. Glue
D. Gum
5. What type of shape is a lozenge figure?
A. Pentagon
B. Teardrop
C. Triangle
D. Diamond
6. What year did the designer of the MacPherson strut pass?
A. 1999
B. 1960
C. 1976
D. 1953
7. Where would an intermezzo most likely be seen?
A. The Opera
B. Basketball game
C. Karate tournament
D. Drag car race
8. How many years ago was the word nice used in English and what did it mean then?
A. 500 years, Liar
B. 475 years, Stupid
C. 400 years, Neat
D. 500 years, Foolish
9. What was the name given to an American that was on the side of the British during the American Revolution?
A. Thug
B. Churl
C. Tory
D. Piker

10. According to geological time, what era did the Jurassic period occur?
 A. Precambrian
 B. Mesozoic
 C. Cenozoic
 D. Paleozoic
11. What is the principal light-gathering element of a refractor?
 A. Steel plates
 B. Water
 C. Mirrors
 D. A lens
12. How long was Lady Jane Grey the queen of England?
 A. 9 days
 B. 40 years
 C. 4 years
 D. 100 days
13. Which of the following entries means “the good old times”?
 A. Old Glory
 B. Auld lang syne
 C. Twelfth Night
 D. Hollyhock
14. A gore of land is cut into what shape?
 A. Circular
 B. Hexagonal
 C. Triangular
 D. Square
15. Which of the following would be used to wake someone that fainted?
 A. Red ink
 B. Smelling salts
 C. Zinnia
 D. Patent Medicine
16. What is the business of the civil service branch?
 A. The military
 B. Lawmaking
 C. The court system
 D. Running a state
17. According to Greek mythology, what was let loose from the box opened by Pandora?
 A. Ghost of her past
 B. Snakes
 C. The evils that troubled humans
 D. The plague
18. All of the following are places of worship, **EXCEPT**?
 A. Tabernacle
 B. Obelisk
 C. Synagogue
 D. Mosque
19. According to the history of derby, what is the name of the derby ran by the Cub Scouts?
 A. Pinewood Derby
 B. Kentucky Derby
 C. Cub Derby
 D. S. Derby
20. What year did Zanzibar unite with Tanganyika forming Tanzania?
 A. 1963
 B. 1964
 C. 1966
 D. 1970

21. Where is Davey Jones's locker located?
 A. A hidden forest
 B. The top of Mt. Everest
 C. The bottom of the ocean
 D. A temple in the Sahara Desert
22. In old legends, nymphs can be found living in all of the following **EXCEPT**?
 A. Meadows
 B. Waters
 C. Sand Dunes
 D. Forest
23. Who was the founder of Georgia?
 A. Nathanael Greene
 B. John Charles Fremont
 C. George Smith Patton
 D. James Edward Oglethorpe
24. Which of the following chemical elements is the simplest and lightest of all chemical elements?
 A. Hydrogen
 B. Iron
 C. Nitrogen
 D. Carbon
25. What type of fungus is a death cap?
 A. Rust
 B. Mushroom
 C. Mold
 D. Yeast
26. What is the science that deals with measuring time and dating events?
 A. Geology
 B. Chronology
 C. Anatomy
 D. Botany
27. How does a mendicant make a living?
 A. Selling online
 B. Auctioning off cattle
 C. By begging
 D. State funding
28. Which of the following rivers flow into the Murray?
 A. Po
 B. Uruguay
 C. Parana
 D. Murrumbidgee
29. Trachoma is a serious contagious disease on what part of the body?
 A. Eye
 B. Foot
 C. Spine
 D. Liver
30. About how many joules equal the British thermal unit?
 A. 2005 joules
 B. 1000 joules
 C. 1055 joules
 D. 1005 joules
31. What year did Great Britain and the American colonies adopt the Gregorian calendar?
 A. 1750
 B. 1582
 C. 1580
 D. 1752

32. In legend Godiva rode through Coventry naked to save the citizens from what?
- A. The angry mob
 - B. A tax
 - C. A stampede
 - D. A pack of wolves

Match each of the following words to its correct meaning:

- | | |
|---------------------|------------------------------------------|
| _____ 33. ken | A. to raid especially in order to steal |
| _____ 34. stanch | B. the power to produce a desired result |
| _____ 35. chide | C. to express mild disapproval of |
| _____ 36. foray | D. to stop the flow of |
| _____ 37. efficacy | E. one who gets money by using force |
| _____ 38. blip | F. range of vision |
| _____ 39. null | G. having no legal or binding force |
| _____ 40. racketeer | H. a spot on a screen |

**University Interscholastic League
2021-22 Dictionary Skills Contest
Fall/Winter District Test — Grades 5 & 6**

Answer Key

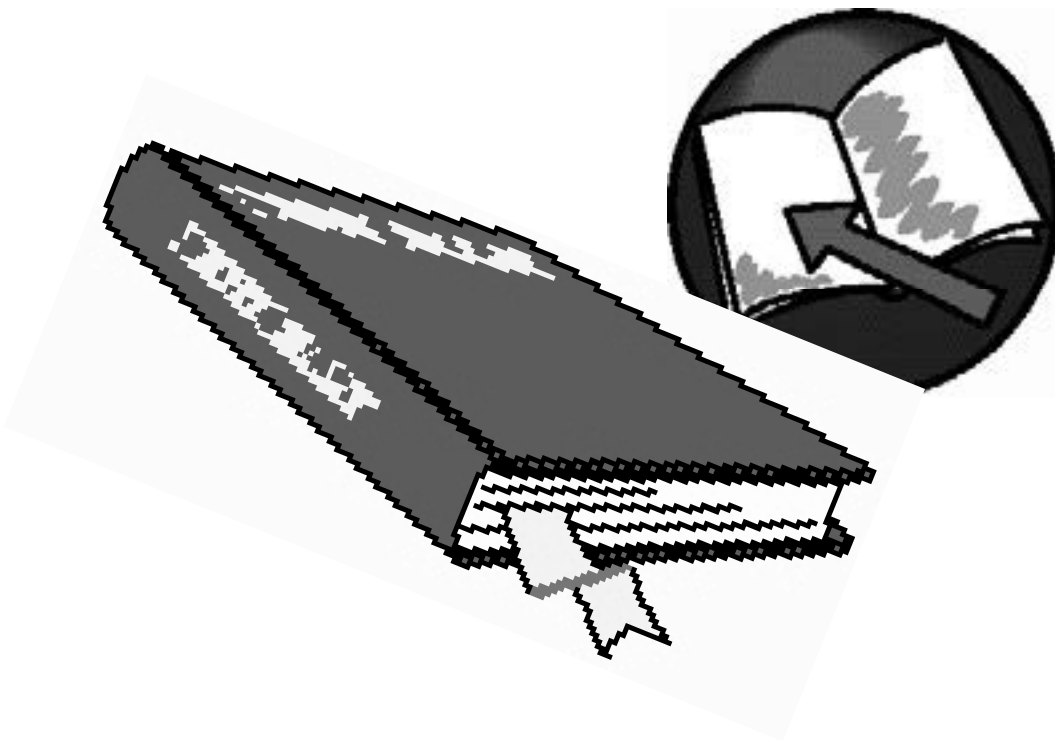
- | | |
|-------|-------|
| 1. C | 21. C |
| 2. B | 22. C |
| 3. C | 23. D |
| 4. A | 24. A |
| 5. D | 25. B |
| 6. B | 26. B |
| 7. A | 27. C |
| 8. D | 28. D |
| 9. C | 29. A |
| 10. B | 30. C |
| 11. D | 31. D |
| 12. A | 32. B |
| 13. B | 33. F |
| 14. C | 34. D |
| 15. B | 35. C |
| 16. D | 36. A |
| 17. C | 37. B |
| 18. B | 38. H |
| 19. A | 39. G |
| 20. B | 40. E |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

**University Interscholastic League
2021-22 Dictionary Skills Contest
Spring District Test — Grades 5 & 6**

1. Pumice is formed by the rapid cooling of what?
A. Boiling water and salt C. Lava from volcanoes
B. Wax and crystal mixture D. Sand that was hit by lightning

2. The entry *country western* refers to what?
A. Land C. Food
B. Music D. Clothing

3. What type of motions is the Korean martial arts, hapkido based on?
A. Climbing C. Kicking
B. Squatting D. Punching

4. What sea does the Oder river flow into?
A. Caribbean Sea C. Black Sea
B. Red Sea D. Baltic Sea

5. What type of animal is a thrush?
A. Bird C. Leech
B. Horse D. Lizard

6. Which of the following would most likely **NOT** be found at a smorgasbord?
A. Milk C. Plates
B. Burdock D. Fish

7. What color is the Betelgeuse star?
A. Blue C. Green
B. Red D. Yellow

8. About how many miles above the earth's surface is the E layer?
A. 42 miles C. 103 miles
B. 88 miles D. 65 miles

9. What might one use a travois for?
A. Telling time C. Load transporting
B. Making weapons D. Cooking

10. All of following are types of skin used in making vellum,
EXCEPT?
A. Gator skin C. Lambskin
B. Kidskin D. Calfskin

11. What day is Martinmas celebrated?
 A. October 3rd C. November 11th
 B. March 25th D. December 26th
12. What does Pearl S. Buck, Gertrude Belle Elion, and John Ernst Steinbeck all have in common?
 A. Philosophy C. Politics
 B. Nobel Peace Prize D. Composing
13. When finding ones IQ, the mental age of the person as given by a score on a special test is divided by the age in years and then multiplied by what?
 A. 10 C. 50
 B. 20 D. 100
14. Where was the Ten Commandments given to Moses by God?
 A. Illyria C. Mount McKinley
 B. Mount Sinai D. Luanda
15. Which of the following would one wear to best protect them in battle?
 A. Gaiter C. Panoply
 B. Smock D. Cowl
16. According to the history of October, what month did the first calendar used in ancient Rome start with?
 A. March C. October
 B. February D. May
17. Alan Bartlett Shepard Jr. was the first American to do what?
 A. Win the Nobel Peace Prize C. Publish a novel
 B. Be in space D. Orchestrate an Opera
18. Ferrous sulfate contains all of the following elements, **EXCEPT**?
 A. Oxygen C. Nickel
 B. Sulfur D. Iron
19. According to quarantine history, about how long would a ship suspected of carrying a disease, be forced to remain offshore?
 A. 14 days C. 60 days
 B. 40 days D. 20 days
20. Storehouse, granary, and cellar were original meanings for which of the following?
 A. Satellite C.
 B. Hatchery D. Magazine

21. What causes a gully to be formed?
A. Running water
B. Explosions
C. Pollution
D. A shift in the earth's surface
22. What is another description for someone considered to be run-of-the-mill?
A. Extraordinary
B. Hyper
C. Average
D. Busy
23. In what sport would a sacrifice fly happen?
A. Cricket
B. Baseball
C. Wrestling
D. Water polo
24. Frederic Auguste Bartholdi was the French artist responsible for what sculptor?
A. The Thinker
B. Statue of Liberty
C. Cloud Gate
D. Mount Rushmore
25. What type of activity is a tangram?
A. Gambling
B. A sports race
C. A mase
D. A puzzle
26. How would you be able to tell the difference between a contrabassoon and a bassoon?
A. The body
B. The color
C. The texture
D. The taste
27. What type of condition is myopia?
A. Heart
B. Skin
C. Eye
D. Toenail
28. What year did the Holy Roman Empire fall?
A. 1806
B. 1754
C. 1902
D. 1910
29. Which of the following is a substance that can be used to reduce in?
A. Vagabond
B. Mustard plaster
C. Blastula
D. Nankeen
30. What is stored in a Leyden jar?
A. fruit
B. votes
C. electric charge
D. spices
31. How much is a napoleon worth?
A. 25-franc
B. 15-franc
C. 5-franc
D. 20-franc

32. In baseball, the area on a batter between the armpits to the top of the knees, is known as what?

- A. Vacationland
- B. Borderline

- C. Strike zone
- D. Contour line

Match each of the following words to its correct meaning:

_____ 33. lira

_____ 34. suitor

_____ 35. frippery

_____ 36. beget

_____ 37. wassail

_____ 38. dictum

_____ 39. urbane

_____ 40. fillet

A. showy or elegant clothing

B. to become the father of

C. a statement made with authority

D. one that petitions or pleads

E. a piece or slice of boneless meat or fish

F. very polite and smooth in manner

G. the basic unit of money of Italy until 2002

H. an early English toast to someone's health

**University Interscholastic League
2021-22 Dictionary Skills Contest
Spring District Test — Grades 5 & 6**

Answer Key

- | | |
|-------|-------|
| 1. C | 21. A |
| 2. B | 22. C |
| 3. C | 23. B |
| 4. D | 24. B |
| 5. A | 25. D |
| 6. B | 26. A |
| 7. B | 27. C |
| 8. D | 28. A |
| 9. C | 29. B |
| 10. A | 30. C |
| 11. C | 31. D |
| 12. B | 32. C |
| 13. D | 33. G |
| 14. B | 34. D |
| 15. C | 35. A |
| 16. A | 36. B |
| 17. B | 37. H |
| 18. C | 38. C |
| 19. B | 39. F |
| 20. D | 40. E |

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 75. Initials _____

_____ out of 75. Initials _____

Papers contending to place:

_____ out of 75. Initials _____



**University Interscholastic League
A+ Listening Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level : 5 6 7 8

- 1. A B C D
- 2. A B C D
- 3. A B C D
- 4. A B C D
- 5. A B C D
- 6. A B C D
- 7. A B C D
- 8. A B C D
- 9. A B C D
- 10. A B C D
- 11. A B C D
- 12. A B C D
- 13. A B C D

- 14. A B C D
- 15. A B C D
- 16. A B C D
- 17. A B C D
- 18. A B C D
- 19. T F
- 20. T F
- 21. T F
- 22. T F
- 23. T F
- 24. T F
- 25. T F

UIL LISTENING CONTEST - GRADES 5 & 6 INVITATIONAL MEET 2021-2022

Contest Script- "Watermelon"

One of the most popular treats eaten in Texas on a hot day is a cold slice of watermelon. It is made up of over 90 percent water so it is a great thirst quencher. Besides being thirst quenching and refreshing, watermelon is very good for your health. Although it does not have an abundance, it does contain vitamins and minerals packaged in a delicious summertime melon. It's full of vitamin B6, Vitamin A, and potassium and is considered a powerful antioxidant.

Watermelon is a member of the Cucurbitaceae (Cu· cur· bi· ta· ce· ae\ kyü , kərbə' tāsē , ē) plant family. This plant family includes cucumber, pumpkin, squash and musk melon. Members of this plant family bear separate male and female flowers on the same plant. This is known as being monocious. The edible part of the melon is called a pepo, which is the ripened ovary, and consists of the watery insides covered with a hard rind. It is often eaten as a fruit because of its sweetness, but it is sometimes classified as a vegetable. If you talk to a botanist, most agree that the watermelon is a fruit because it develops from the plant's ovary after flowering and it holds its seeds. A vegetable is generally considered anything eaten from the other parts of plants such as leaves or roots. However, some people consider it to be a vegetable. In fact, it was declared the official state vegetable of Oklahoma in 2007.

Because the watermelon contains so much water, people in ancient times used it as a water source. It can be traced back in history 5000 years to southern Africa. This ancestor of the watermelon thrived in the Kalahari desert region and was prized by the people living there because of its ability to store water. Unlike the watermelons we are familiar with today, this watermelon tasted very bitter. It is thought that the people of this time also roasted and ate watermelon seeds as a form of nourishment. The

watermelon eventually made its way to Egypt. Seeds and paintings of watermelon have been discovered in Egyptian tombs that are more than 4000 years old. These paintings show the watermelon to be oval shaped instead of the more ancient round type. It was during this time that the melons were developed to become sweeter and more desirable to eat.

3:00 It was also during this time that watermelon began to be used as medicine and for religious offerings. Ancient manuscripts of Jewish Law state that watermelon was an item to be used as a tithe and set aside for the priests. The Greeks and Romans considered the watermelon to contain medicinal properties. Greek physician Hippocrates said it could be used as a diuretic to relieve fluid retention. It could also be used as a treatment for children who suffered a heat stroke by placing a wet, cool watermelon rind on their heads. The Roman naturalist Pliny the Elder discussed watermelon as a cooling food in his publication, *Historia Naturalis*.

By the 7th Century, watermelon had made its way to India. By the 10th, it had traveled all the way to China. Watermelon was introduced by the Moors into the Iberian Peninsula in the 13th century and consequently spread throughout southern Europe. So much so that by the 17th century, it had become a familiar and consistent garden crop. It was European colonists who introduced watermelon to the New World. In fact, some explorers used the watermelon as a canteen to provide hydration on their journeys. As early as 1576, it could be found growing in Florida. Captain James Cook introduced the watermelon to the Hawaiian Islands and other islands in the Pacific. Thomas Jefferson grew watermelon at his plantation Monticello. Watermelons were also used to cook with. The first cookbook published in the United States in 1796 shows a recipe for pickled watermelon rind.

4:00

During the more recent 20th century, watermelon improvements began. By saving the seeds of melons that were especially sweet or hardy, planters could be assured of a better crop. In the United States, the US Department of Agriculture (USDA) funded a

watermelon project at its Charleston, South Carolina facility. One of the projects conducted there was the development of a large, oblong light green melon. This melon became known as the grey melon from Charleston. The Charleston Grey is still widely planted and known for its high yields, delicious flavor, and disease resistance.

5:00 Because seeds are generally a nuisance when eating, scientists began experimenting with methods to grow watermelons that did not have seeds. Seedless watermelons were developed in the 1950s. Seedless watermelons were created by cross breeding a normal watermelon which contains two sets of chromosomes with one that has had its chromosome number doubled to contain four sets. A watermelon with two sets of chromosomes is called a diploid. One with four sets is called a tetraploid. When a tetraploid is crossed with a diploid it results in a triploid with three sets of chromosomes. Triploid watermelons do not have seeds.

In more recent years, botanists have made efforts to produce smaller melons that are easier to put into your refrigerator, are resistant to disease and are even sweeter than before. Some of the most recently introduced watermelons are Jade Star, Mambo, Mini-Love, Harvest Moon, and Cal Sweet. There are also now watermelons with yellow, orange, and white fruit inside instead of red.

6:00 No matter which type you decide to grow, watermelons fields should have a sunny location with soil that holds water well and has adequate drainage. Ideal soil would have an acidity of pH 5.8 to 6.5. As you might expect, watermelons require a lot of water. However, as they mature, too much water will cause the melon to crack. Too much water can also cause the flavor of the melon to be diluted. Watermelons grow best at temperatures between 65 and 95 degrees Fahrenheit.

It is also imperative to wait to plant until the soil has warmed up during the spring. Watermelons are grown annually and generally grow up to 3 feet long. Christopher Kent holds the record for the largest watermelon. His Carolina Cross melon grown in

Sevierville, Tennessee in 2013 was 8 feet 3 inches long and weighed 350-pounds and was officially recognized by the Guinness Book of World. While the weight of a normal watermelon varies, the average weight lies between 20 and 25 pounds. In turn, these average watermelons generally yield 14 to 18 pounds of edible fruit leaving the remainder of the weight in the rind.

7:00 Watermelons are considered ready for harvest when their “belly patch”, the portion of the rind that rests on the ground, turns from white to creamy yellow. Another way to tell if the melon is ripe is when the tendril located near where the melon is attached to the vine turns from green to brown. Once the melon is harvested, it can be stored at room temperature for about one week. If it is refrigerated, it can be stored for two to three weeks.

Scientists are still discovering the health benefits of the melon. Recent studies revealed that, when combined with a healthy lifestyle, watermelon consumption can reduce the risk of both cancer and diabetes. Other studies indicate watermelon consumption might even be helpful in reducing the onset of rheumatoid arthritis.

8:00 As time goes by, watermelon seems to be growing in popularity. There are over 1,200 varieties of watermelon grown across 96 countries. China is number 1 in watermelon production. Watermelon consumption in the United States has been steadily rising over the past 20 years. Per capita watermelon consumption was 13.8 pounds in 2000, but it has gradually risen to 15.7 pounds in 2018. The United States is 7th in production and produces more than \$500 million worth of watermelon commercially every year. According to the USDA, the major watermelon producing states are Texas, Florida, Georgia, and California with Georgia being the largest.

National Watermelon Month is in July. As the Texas heat takes over, remember that nothing tastes as great as a big cold bowl of watermelon. The next time you indulge, remind yourself that watermelon is not only a great treat, it is good for you as well.

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Listening
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UIL LISTENING CONTEST - GRADES 5/6
INVITATIONAL 2021-2022
TEST

"Watermelon"

1. The watermelon is a member of the Cucurbitaceae which includes all of the following except
 - A. cucumber
 - B. pumpkin
 - C. squash
 - D. cantaloupe

2. Watermelon was declared the official state vegetable of Oklahoma in
 - A. 1995
 - B. 2007
 - C. 2015
 - D. 2019

3. Ideal soil for growing watermelon would be would have an acidity of pH
 - A. 5.4
 - B. 6.8
 - C. 5.9
 - D. 7.2

4. The average weight of a watermelon lies between
 - A. 20 – 25 pounds
 - B. 14 – 18 pounds
 - C. 10 – 15 pounds
 - D. 27 – 30 pounds

5. Recent studies revealed that, when combined with a healthy lifestyle, watermelon consumption can reduce the risk of both cancer and
 - A. diabetes
 - B. heart disease
 - C. obesity
 - D. hyperthyroidism

6. Watermelon was introduced by the Moors into the Iberian Peninsula in the
 - A. 12th Century
 - B. 13th Century
 - C. 15th Century
 - D. 17th Century

7. The Charleston Gray is described as
 - A. small, round and green
 - B. large, round and striped
 - C. large, oblong and green
 - D. small, oblong and striped

8. How many sets of chromosomes does a seedless watermelon have?
 - A. 2
 - B. 3
 - C. 4
 - D. 5

9. Hippocrates used watermelon as a diuretic to
 - A. reduce tension
 - B. cure headaches
 - C. prevent exhaustion
 - D. relieve fluid retention

10. Who introduced watermelon to the Hawaiian and Pacific Islands?
 - A. Thomas Jefferson
 - B. James Cook
 - C. Pliny the Elder
 - D. George Lanthrop

11. 5000 years ago, the watermelons found in Southern Africa were prized because
 - A. they contained fluid
 - B. they were very sweet
 - C. they had a beautiful red color
 - D. they were rare and nutritious

12. Who believed the watermelon should be set aside for tithes and given to their religious leaders?
 - A. Jews
 - B. Romans
 - C. Greeks
 - D. Egyptians

13. A plant that is monecious
 - A. has one reproductive part that is either male or female
 - B. can reproduce without fertilization
 - C. has both male and female flowers on the same plant
 - D. produces only one type of fruit

14. How did the Greeks use watermelon to cure heat stroke?
 - A. They fed cold watermelon to the victim.
 - B. They placed a cold watermelon rind on the head of the victim.
 - C. They placed the victim in a cool watermelon bath.
 - D. They used watermelon juice as medicine.

15. Who published Historia Nautilus?
 - A. James Cook
 - B. Thomas Jefferson
 - C. Pliny the Elder
 - D. Hippocrates

16. The edible part of a watermelon is called the
 - A. rind
 - B. musk
 - C. diploid
 - D. pepo

17. The first cookbook published in the United States in 1796 shows a recipe for
 - A. watermelon soup
 - B. watermelon sauerkraut
 - C. pickled watermelon rind
 - D. roasted watermelon seeds

18. During which century did the USDA begin working to improve watermelons?
 - A. 18th
 - B. 19th
 - C. 20th
 - D. 21st

True/False

19. Watermelons are considered ready for harvest when their "belly patch", the portion of the rind that rests on the ground, turns from white to creamy yellow.

20. Egyptian tombs from more than 4000 ago show the watermelon to be oval shaped instead of the more ancient round type.

21. In the United States, the US Department of Agriculture (USDA) funded a watermelon project at its Charleston, Virginia facility to determine a way to create watermelons that were seedless and sweeter to the taste.

22. Seedless watermelons developed in the 1950s were created by cross breeding a normal watermelon which contains two sets of chromosomes with one that has had its chromosome number doubled to contain four sets.
23. Christopher Kent holds the record for the largest watermelon. His Charleston Gray melon grown in Sevierville, Tennessee in 2013 was 9 feet 8 inches long and weighed 350-pounds.
24. Once a watermelon is harvested, it can be stored at room temperature for about three weeks. If it is refrigerated, it can be stored for up to two months.
25. Studies indicate watermelon consumption might be helpful in reducing the onset of rheumatoid arthritis.

UIL LISTENING CONTEST - GRADES 5/6
INVITATIONAL MEET 2021-2022
ANSWER KEY

"Watermelon"

1. D

2. B

3. C

4. A

5. A

6. B

7. C

8. B

9. D

10. B

11. A

12. A

13. C

14. B

15. C

16. D

17. C

18. C

19. T

20. T

21. F

22. T

23. F

24. F

25. T

UIL LISTENING CONTEST - GRADES 5 & 6 FALL/WINTER DISTRICT 2021-2022

Contest Script- "Chewing Gum"

How many of you like chewing gum? If you are like most people, you have chewed your fair share of the stuff. Most people enjoy it. Some people despise it. But it is likely that at some time in your life you have tried it. Even the story of Willy Wonka contains a character who chews gum. It may seem like chewing gum is a modern invention, but, chewing gum has been used since ancient times.

Although chewing gum as we know it didn't actually exist until much later, there is evidence that people in northern Europe were chewing birch bark tar as far back as 9,000 years ago. Birch is a type of tree whose sap is sometimes used for syrup. However, birch bark tar is not made from the sap. To make birch bark tar, the bark is heated until an oily substance called betulum sweats out of it. That substance is collected in a pan and then boiled until it is thick like rubber. When it cools, it is fairly solid. If you spread it on something while it is warm, when it cools it is waterproof. It could be used to seal leather seams on shoes. You can even use it as a crayon. But it chews like a stiff bubble gum as well with very little flavor.

The Europeans claimed it had medicinal purposes such as relieving toothaches as well as being an enjoyable experience. In Central and South America, the ancient Mayan people chewed a substance called chicle. Chicle was produced from the sapodilla tree. Chicle is collected by making zigzag cuts in the tree which allow the sap to run into a receptacle at the base of the tree. It is usually pink or reddish brown. The Aztecs used chicle and even had rules about how it could be used in their society. Only children and single women were allowed to chew it in public. Married women and widows could chew it at home in private. Men could only chew it secretly if they wanted to use it to clean their teeth.

In North America, native people chewed spruce tree resin. When European settlers arrived, they picked up the practice. In the 1846, John Curtis developed the first commercial use of spruce tree gum. Curtis made chewing gum using spruce resin, beeswax and other flavorings. He

cooked the ingredients together then allowed it to cool into a rubbery substance. He then cut it into strips that were coated in cornstarch to keep them from sticking together. The label on his new product read "State of Maine Pure Spruce Gum." In 1848, his family moved to Bangor, Maine, to try to sell the product. By the early 1850's he had constructed the world's first chewing gum factory in Portland, Maine. However, spruce resin turned out to be a less than perfect base for his gum. It didn't taste great and after it was chewed, it became stiff and brittle.

3:00 During that same timeframe, an inventor from New York, Thomas Adams, was given some chicle from Mexico. He began to experiment with it as an alternative to rubber for use in tires. When his work was unsuccessful, he realized that instead of trying to use chicle as an industrial product, he could use it to improve the flavor and texture of chewing gum. He formed a company that made chewing gum that was sold across the country. The chewing gum called Chiclets was created from chicle imported from Mexico and central America until the mid-1900s when chicle was replaced by synthetic ingredients.

Perhaps the most famous maker of chewing gum was William Wrigley, Jr. Wrigley started out as a soap salesman in Philadelphia. His father was the founder and president of the Wrigley Manufacturing Company whose primary product was Wrigley's Scouring Soap. When William was 13 years old, he became a soap salesman for his father selling soap from a basket on the streets of Philadelphia, Pennsylvania. In 1891, he moved to Chicago, Illinois, with his wife Ada and their daughter Dorothy. He opened a new branch of his father's company where he continued to sell soap. He offered store owners incentives to stock his products such as free cans of baking powder with every order.

4:00 In fact, the baking powder became such a hit that he began selling it instead and offered free packs of chewing gum as the incentive. He was surprised to realize that pretty soon, instead of baking powder, the store owners were purchasing chewing gum. Soon, William Wrigley stopped selling baking powder altogether and focused on the gum industry. In 1893, he offered two new gum brands. You may have heard of them – Juicy Fruit and Wrigley's Spearmint. In 1907, during the Great Depression, Wrigley risked everything he owned to advertise his gum.

By 1908, Wrigley's Spearmint sales were more than \$1,000,000. In 1915, the Wrigley Company kicked off a campaign in which it sent free samples of its gum to a total of more than 8.5 million Americans listed in phone books. Soon Wrigley became the biggest chewing gum manufacturer in the world. He established gum companies in Canada, Australia, Great Britain and New Zealand. When he died on January 26th, 1932, he was one of the richest men in the 20th century – thanks to chewing gum.

Another chewing gum competitor was Frank Fler. His company had made chewing gum since 1885, but nothing really made him stand out. He spent years working on a product that would set his company apart – bubble gum. In 1906, he concocted a bubble gum he called Blibber-Blubber, but it was too sticky. In 1928, a Fler employee named Walter Diemer finally came up with a formula that successfully created the first commercial bubble gum, named Dubble Bubble. Bubble gum was originally a dingy gray color, however, Diemer decided to give it a distinct pink color by adding red dye. This remained the dominant brand of bubble gum until after World War II when Bazooka bubble gum entered the market. The gum was produced by the Topps Company of Brooklyn, New York. It was packaged in patriotic red, white, and blue. In 1953, Topps added Bazooka Joe comic strips. The comic strips were discontinued in 2011, however they have become a collectible. There were 75 different comic strips produced.

Up until the 1970s, bubble gum had a tendency to stick to your face. It was at this point in time that synthetic gum was introduced which would not stick to your face as the bubble popped. The first brands in the United States to use this synthetic gum bases were Hubba Bubba and Bubble Yum. Hubba Bubba was the first bubble gum produced by the Wrigley Company in 1979. The name comes from the phrase "Hubba Hubba" which was used by soldiers during World War II to mean they liked something. Bubble Yum was introduced in 1975 by Life Savers and was the first soft bubble gum ever created. In 1977, rumors began to spread that Bubble Yum was soft because the makers added spider eggs to the mix. The Life Savers company put out a full-page ad in most newspapers in the United States to publicly denounce those rumors. Today, Bubble Yum is made by the Hershey Company.

Bubble gum has even been the source of some world records. In 1996, Susan Montgomery Williams of Fresno, California set the Guinness World Record for the largest bubblegum bubble

ever blown. Her bubble was 26 inches in diameter! On April 24, 2004, Chad Fell earned the record for the largest hands-free bubblegum bubble with a diameter of 20 inches!

8:00 It seems that chewing gum has been part of the American culture for a long, long time. Is there any good that can come from chewing gum other than simple fun? Studies have shown that chewing gum while working can improve various aspects of brain function, including alertness, memory, comprehension, and problem solving. In one study, people who chewed gum performed 24% better than those who didn't in short term memory tests and 36% better in long-term memory tests. It has been proven, however, that at first chewing gum is a distraction. But, as time goes on, the chewing can help you focus. How this all works isn't fully understood, but it has been theorized that the improvement is due to increased blood flow to the brain caused by the act of chewing itself. Research has also shown that chewing gum can reduce stress and increase feelings of alertness.

Who knew that chewing gum had such a rich history and even positive effects on learning and working? All that originated from ancient peoples chewing the resin from trees. Amazing.

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Listening

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UIL LISTENING CONTEST - GRADES 5-6
FALL/WINTER DISTRICT 2021-2022
TEST

"CHEWING GUM"

1. In Central and South America, the ancient Mayan people chewed a substance called chicle which came from
 - A. the chiclette plant
 - B. the sapodilla tree
 - C. the bark of a birch tree
 - D. sassafras root
2. John Curtis developed the first commercial use of spruce tree gum in
 - A. 1846
 - B. 1848
 - C. 1850
 - D. 1852
3. Spruce resin turned out to be a less than perfect base gum because of all of these reasons except
 - A. it had a tendency to stick together
 - B. it didn't taste great
 - C. after it was chewed, it became stiff
 - D. it often became brittle
4. William Wrigley started his career as a salesman selling
 - A. chewing gum
 - B. hairbrushes
 - C. soap
 - D. vacuum cleaners
5. Bubble gum was originally colored
 - A. pink
 - B. reddish brown
 - C. gray
 - D. yellow
6. Who set the Guinness World Record for the largest bubblegum bubble ever blown in 1996?
 - A. Susan Montgomery Williams
 - B. Chad Fell
 - C. Walter Diemer
 - D. Frank Fleer
7. The largest hands-free bubblegum bubble had a diameter of
 - A. 24 inches
 - B. 26 inches
 - C. 22 inches
 - D. 20 inches
8. _____ was the first bubble gum produced by the Wrigley Company in 1979.
 - A. Hubba Bubba
 - B. Bubble Yum
 - C. Bazooka
 - D. Bubblicious

9. What substance did John Curtis coat his gum strips with to keep them from sticking together?
- A. powdered sugar
 - B. cornstarch
 - C. ground birch tar
 - D. beeswax
10. Which of the following was NOT a rule the Aztecs had about how chicle could be used in their society?
- A. Children were allowed to chew it in public.
 - B. Married women and widows could chew it at home in private.
 - C. Men could only chew it secretly if they wanted to use it to clean their teeth.
 - D. Single women could only chew it when trying to attract a mate.
11. Where was the world's first chewing gum factory located?
- A. Portland, Maine
 - B. Chicago, Illinois
 - C. New York, New York
 - D. Philadelphia, Pennsylvania
12. Which of the following was one way that William Wrigley advertised his chewing gum?
- A. He sent out free samples of chewing gum to people who purchased soap.
 - B. He sent out free samples of baking powder to people who purchased gum.
 - C. He sent out free samples of chewing gum to everyone in the phone book.
 - D. He sent out free samples of soap to everyone who purchased baking powder.
13. Frank Fleer's first attempt at bubble gum was called
- A. Dubble Bubble
 - B. Blibber Blubber
 - C. Bazooka Joe
 - D. Hubba Bubba
14. Bubble Yum was introduced by Life Savers in the year _____.
- A. 1965
 - B. 1970
 - C. 1975
 - D. 1980
15. Topps Company bubble gum was originally packaged in
- A. red, white and blue
 - B. pink and white
 - C. silver foil
 - D. black and white comics
16. In what year were the Bazooka Joe comic strips discontinued?
- A. 1976
 - B. 1998
 - C. 2011
 - D. 2019
17. Thomas Adams originally experimented with chicle from
- A. Mexico
 - B. Central America
 - C. North America
 - D. Canada

18. The problem with Frank Fleer's first bubble gum was that it was too
- A. brittle
 - B. sticky
 - C. stiff
 - D. bland tasting

True/False

19. The first known chewing gum was made from boiling birch tree sap until it reached a gummy consistency.
20. In 1928, a Fleer employee named Walter Diemer finally came up with a formula that successfully created the first commercial bubble gum, named Dubble Bubble.
21. In 1915, the Wrigley Company kicked off a campaign in which it sent free samples of its gum to a total of more than 8.5 million Americans listed in phone books.
22. In 1977, rumors began to spread the Bubble Yum was soft because the makers added spider silk to the mix.
23. The label on John Curtis's first chewing gum product read "State of Maine Pure Spruce Bark Chewing Gum."
24. The Europeans chewed a substance called betulum and claimed it had medicinal purposes such as relieving toothaches as well as being an enjoyable experience.
25. When Thomas Adams was unsuccessful using chicle as an alternative to rubber for use in tires, he realized that he could use it to improve the flavor and texture of chewing gum and formed a company called Chiclets that sold gum across the United States.

UIL LISTENING CONTEST - GRADES 5-6
FALL/WINTER DISTRICT 2021-2022
ANSWER KEY

"CHEWING GUM"

- | | |
|-------|-------|
| 1. B | 14. C |
| 2. A | 15. A |
| 3. A | 16. C |
| 4. C | 17. A |
| 5. C | 18. B |
| 6. A | 19. F |
| 7. D | 20. T |
| 8. A | 21. T |
| 9. B | 22. F |
| 10. D | 23. F |
| 11. D | 24. T |
| 12. C | 25. T |
| 13. B | |

UIL LISTENING CONTEST - GRADES 5 & 6 SPRING DISTRICT 2021-2022

Contest Script- "Buddy Holly"

In your lifetime, you will become familiar with lots of different genres of music. One type of music that has been popular for many years is rock. Rock music covers a wide variety of styles, but it originated in the United States in the 1940s and 1950s as a genre known as "rock and roll". The rock and roll style drew directly from the blues and rhythm and blues that had become popular as well as electric blues and folk. Rock music instrumentation centered mainly on the electric guitar and rock groups generally had an electric bass, drums and one or more singers.

1:00

Like pop music, the lyrics often revolved around love, but they also included themes that were social or political. Buddy Holly was an American singer/songwriter who produced some of the most distinctive and influential work in rock music. By the age of 16, he had experience with several music styles and had performed on many stages. His hits "Peggy Sue" and "That'll Be the Day" were known worldwide and by the time he died in a tragic plane crash at age 22, he was already considered a rising star in the music scene.

Buddy Holly was born Charles Hardin Holley on September 7, 1936, in Lubbock, Texas. His parents were Lawrence Odell, known as L.O., and Ella Pauline Drake. He had three older siblings – Larry, Travis, and Patricia Lou. His family was mostly of English and Welsh descent, but he also had small amounts of Native American in his ancestry. As the fourth and youngest child in his family, Holly was nicknamed "Buddy" by his mother, who felt that his given name was too big for her little boy. During the Great Depression, the Holleys moved into different homes often, but they always resided in Lubbock. L.O., a tailor by trade, also changed jobs several times. They attended the Tabernacle Baptist Church where Buddy was baptized.

2:00

The Holley family always had an interest in music. Everyone except L.O was able to play an instrument or sing. Buddy tried to learn the violin, and his brothers learned to play the guitar. The elder brothers, Larry and Travis, often performed in local talent shows. On one occasion, Buddy joined them onstage with a violin in hand. Because he wasn't very good on the violin, his brothers greased the strings so that it would not make any sound! Buddy pretended to play the violin throughout the song. The brothers won the contest!

3:00

At the age of 11, Buddy took piano lessons. He didn't enjoy it and dropped the lessons after only 9 months. After seeing a classmate playing the guitar and singing on the school bus, he talked his parents into buying him a guitar. His parents originally bought him a steel guitar, but he said he would rather have an acoustic one. They bought him one from a pawn shop and his brother Travis taught him how to play it. In 1949, his parents recorded him singing "My Two-Timin' Woman." Even at the age of 13, it was clear that Buddy was talented. His parents were very supportive of their son's growing musical talents and even helped him come up with song ideas. His mother even wrote a letter to the editor of Lubbock's newspaper defending rock and roll loving teenagers.

Buddy was a bit rebellious, however. Once the pastor of the Tabernacle Baptist Church asked him, "What would you do if you had \$10?" Buddy reportedly muttered, "If I had \$10, I certainly wouldn't be here." During World War II, Larry and Travis were drafted into the military. When he returned, Larry brought him a guitar he had bought from a soldier serving in the Pacific. After both brothers returned, they opened their own tiling business. Buddy could have joined them, but he had set his heart on rock and roll.

When Buddy was in school, he and his friends were influenced by the music of Hank Williams, Bob Wills, and the Carter Family. As early as elementary school at Roscoe Wilson Elementary, he and his friend Bob Montgomery listened to radio programs like Grand Ole Opry. When he was in high school, he met other musicians and spent time playing different kinds of music. In 1952, Buddy and Jack Neal participated in a talent

4:00 contest on a local television show. They called themselves Buddy and Jack. This led to the duo playing at various events. Later, Jack Neal was replaced by Buddy's old friend Bob Montgomery, and they changed the name of the group to "Buddy and Bob." They soon started performing on the Sunday Party show on the radio station KDAV as well as live shows in Lubbock. During this time Holley would sit in his car and listen to distant radio stations that could only be received at night when the local stations signed off the air. It was the influence of these distant stations that caused him to change his music by blending country and western with Rhythm and Blues.

In 1955, Buddy graduated from Lubbock High School. He decided to pursue a full-time career in music. He frequently opened for more prominent national acts that toured through town. Sonny Curtis, one of the members in Buddy's Band, said that when Buddy Holley opened for Elvis Presley, it was an important turning point. Buddy loved Elvis's personality and style and began to make changes to his own music. Although Buddy Holley wore glasses and did not have the stage presence that Elvis did, when he began to change his music into a more rock and roll focused sound, people began to take notice.

5:00

A record company talent scout, Eddie Crandall, soon saw his act at a skating rink and signed Buddy to a contract with Decca Records in February 1956. It was on this contract that Buddy's last name was misspelled. Charles H-O-L-L-E-Y became Buddy H-O-L-L-Y. In early 1956, Holly and his band began recording demos and singles with Decca in Nashville under the name Buddy Holly and the Three Tunes. But, Holly was unhappy with the way Decca produced his music. Decca wanted Buddy to stick to his country western roots, but Buddy wanted to focus on the rock and roll sound.

In fact, when Buddy Holly wrote and recorded "That'll Be the Day," Decca insisted it be played in the country western style. After 19 tries, the head of Decca said it was the worst song he had ever heard. Buddy quickly became frustrated with Decca records and wanted out. When He left Decca and began working with producer Norman Petty and changed the name of his band to the Crickets. Legend says that the name Crickets was

6:00 chosen because as they were practicing one day, a cricket was making noise in the background. Holly began playing lead guitar and finally achieved the sound he wanted. Holly and the Crickets re-recorded, "That'll Be the Day," in 1957 and it was an immediate hit. The song's title and refrain are a reference to a line uttered by John Wayne in the 1956 film *The Searchers*. Between August 1957 and August 1958, Holly and the Crickets charted seven different Top 40 singles.

In 1958, Buddy met Maria Elana Santiago. He asked her out immediately and proposed to her on their first date. They were married on August 15, 1958. Because Holly's manager Norman Petty disapproved of the marriage, it was kept a secret from the fans. Maria was presented as the Crickets' secretary and took care of the laundry and equipment.

7:00 Because there was so much travel involved with being in a rock and roll band, there were often problems. One big problem was traveling during the winter on unheated tour buses. Holly's drummer Carl Bunch was hospitalized for frostbite to his toes after one such tour. On February 2, 1959, just before their show in Clear Lake, Iowa, Buddy chartered a four-seat Beechcraft Bonanza airplane to fly instead of drive to Moorhead, Minnesota. This would allow them time to rest, do their laundry, and avoid a freezing trip on the travel bus. Immediately after their show in Clear Lake, Buddy, Waylon Jennings, Buddy's drummer and guitar player prepared to head to the plane.

The drummer flipped a coin with Richie Valens who also wanted to fly, and Valens won. Waylon Jennings voluntarily gave up his seat to J.P. Richardson, known as the Big Bopper, who had been suffering with the flu and said that the tour bus was too uncomfortable and cold for a man of his size. Everyone else left in the tour bus to drive from Clear Lake to Moorhead. The pilot took off in stormy weather even though he was not certified to fly with the type of instruments in the plane. Shortly after 12:55 AM on February 3, 1959, Buddy Holly and the rest of the passengers were killed instantly when the aircraft crashed **8:00** into a frozen cornfield five miles northwest of Mason City, Iowa. Holly was 22 years old.

Holly's music was a major influence for such rock music legends as the Beatles, the Rolling Stones, Bob Dylan, the Grateful Dead, Linda Ronstadt, Bruce Springsteen, and Elvis Costello. In 1971, Don McLean released a song calling February 3, 1959, "the day the music died." The song was called "American Pie," and it became a number one hit. The movie *The Buddy Holly Story* was released in 1978. This movie version of his life and contribution to music started a major revival of Holly's short, influential career. The city of Lubbock soon realized the financial benefits of promoting Buddy Holly's hometown as a tourist attraction. In 1979 the city commissioned a bronze statue of Holly by sculptor Grant Speed. It was unveiled in 1980, near the Lubbock Memorial Civic Center. In 1986, he was posthumously inducted into the Rock and Roll Hall of Fame.

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Listening
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UIL LISTENING CONTEST - GRADES 5-6
SPRING DISTRICT 2021-2022
TEST

"Buddy Holly"

1. What town did Buddy Holley call home when he was growing up?
A. Lubbock
B. Nashville
C. Austin
D. Fort Worth
2. How many months did Buddy take piano lessons before he quit?
A. 5
B. 7
C. 8
D. 9
3. In 1956, what was the name of Buddy's first band after he signed with a record company?
A. Crickets
B. Two Timers
C. Three Tunes
D. Buddy and Jack
4. What was the radio station that Buddy performed on when he was in high school?
A. KLBJ
B. KDAV
C. KLUB
D. KDFW
5. What was the name of the movie about Buddy Holly's life?
A. *Buddy and the Crickets*
B. *The Buddy Holly Story*
C. *American Pie*
D. *Buddy Holly: Gone Too Soon*
6. Who was commissioned to create a bronze sculpture of Buddy Holly for his hometown?
A. Norman Petty
B. Don McClean
C. Bob Montgomery
D. Grant Speed
7. Where did Buddy Holly perform his last show?
A. Clear Lake, Iowa
B. Moorhead, Minnesota
C. Nashville, Tennessee
D. Mason City, Iowa
8. What recording company representative first signed Buddy Holly?
A. Norman Petty
B. Carl Bunch
C. Eddie Crandall
D. Sonny Curtis
9. In what year was Buddy Holly inducted into the Rock and Roll Hall of Fame?
A. 1986
B. 1980
C. 1979
D. 1971

10. What was the first song that Buddy is known to have recorded?
A. *That'll Be the Day* B. *Peggy Sue*
C. *My Two Timin' Woman* D. *The Searchers*
11. Why did Buddy keep his marriage a secret?
A. He was very young, and it was frowned upon.
B. His manager thought it would be bad for business.
C. He wanted to keep his wife safe from the crowds.
D. His wife didn't want anyone to know she had gotten married yet.
12. What phrase did *American Pie* contained that described the plane crash?
A. a day that will be remembered forever
B. the last of the true musicians
C. a crash that shook the world
D. the day the music died
13. Buddy Holly was _____ years old when he died.
A. 22 B. 23
B. 32 D. 33
14. What was Buddy's father's trade?
A. teacher B. musician
C. tailor D. minister
15. Who taught Buddy to play his first guitar?
A. L.O. B. Travis
C. Larry D. Sonny
16. How many top 40 hits did Buddy Holly and the Crickets have between August 1957 and August 1958?
A. six B. seven
C. eight D. nine
17. After leaving Decca records, Buddy's manager was named
A. Grant Speed B. Don McClean
C. Norman Petty D. Carl Bunch
18. Why did Buddy Holly charter a plane instead of riding on the tour bus with everyone else?
A. He had grown tired of the long rides and felt that a star should have better.
B. The bus was unheated, and they were driving in the winter.
C. Waylon Jennings and Richie Valle wanted to get there sooner.
D. Buddy's wife wanted him to arrive sooner so they could spend time together.

True/False

19. In 1956, Buddy met Maria Elana Santiago, asked her out immediately and proposed to her after only three dates.
20. When Buddy was in high school, he would sneak out and sit in his car and listen to radio stations that his parents disapproved of because the stations played rock and roll.
21. The first recording company that Buddy signed with misspelled his last name on the recording contract.
22. Sonny Curtis, one of the members in Buddy's Band, said that when Buddy Holley opened for Elvis Presley, it caused Buddy to change his appearance by getting contacts and wearing his hair differently in order to be more like Elvis.
23. When Buddy Holly first wrote and recorded "That'll Be the Day, the head of Decca said it was the worst song he had ever heard.
24. Holly's music was greatly influenced by rock music legends including the Beatles, the Rolling Stones, Bob Dylan, the Grateful Dead, Linda Ronstadt, Bruce Springsteen, and Elvis Costello.
25. After Buddy Holly chartered a small plane, Waylon Jennings voluntarily gave up his seat to J.P. Richardson, known as the Big Bopper, who had been suffering with the flu and said that the tour bus was too uncomfortable and cold for a man of his size.

UIL LISTENING CONTEST - GRADES 5-6
SPRING DISTRICT 2021-2022
ANSWER KEY

"Buddy Holly"

- | | |
|-------|-------|
| 1. A | 14. C |
| 2. D | 15. B |
| 3. C | 16. B |
| 4. B | 17. C |
| 5. B | 18. B |
| 6. D | 19. F |
| 7. A | 20. F |
| 8. C | 21. T |
| 9. A | 22. F |
| 10. C | 23. T |
| 11. B | 24. F |
| 12. D | 25. T |
| 13. A | |

FOR GRADER USE ONLY

Score Test Below:

_____ Initials _____

_____ Initials _____

Papers contending to place:

_____ Initials _____



**University Interscholastic League
A+ Maps/Graphs/Charts Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 5 6 7 8

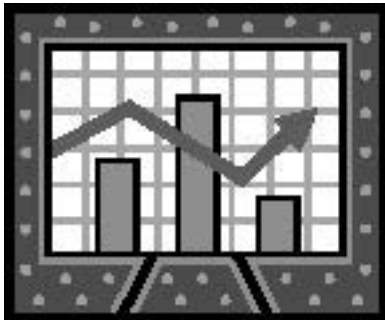
- | | | | | | | | | | | | |
|-------|---|---|---|-------|---|-------|---|-------|---|---|---|
| 1. A | B | C | D | 26. T | F | 51. A | B | C | D | | |
| 2. A | B | C | D | 27. T | F | 52. A | B | C | D | | |
| 3. A | B | C | D | 28. T | F | 53. A | B | C | D | | |
| 4. A | B | C | D | 29. T | F | 54. A | B | C | D | | |
| 5. A | B | C | D | 30. T | F | 55. A | B | C | D | | |
| 6. A | B | C | D | 31. A | B | C | D | 56. T | F | | |
| 7. A | B | C | D | 32. A | B | C | D | 57. T | F | | |
| 8. A | B | C | D | 33. A | B | C | D | 58. T | F | | |
| 9. A | B | C | D | 34. A | B | C | D | 59. T | F | | |
| 10. A | B | C | D | 35. A | B | C | D | 60. T | F | | |
| 11. A | B | C | D | 36. A | B | C | D | 61. A | B | C | D |
| 12. A | B | C | D | 37. A | B | C | D | 62. A | B | C | D |
| 13. A | B | C | D | 38. A | B | C | D | 63. A | B | C | D |
| 14. A | B | C | D | 39. A | B | C | D | 64. A | B | C | D |
| 15. A | B | C | D | 40. A | B | C | D | 65. A | B | C | D |
| 16. A | B | C | D | 41. T | F | 66. A | B | C | D | | |
| 17. A | B | C | D | 42. T | F | 67. A | B | C | D | | |
| 18. A | B | C | D | 43. T | F | 68. A | B | C | D | | |
| 19. A | B | C | D | 44. T | F | 69. A | B | C | D | | |
| 20. A | B | C | D | 45. T | F | 70. A | B | C | D | | |
| 21. A | B | C | D | 46. A | B | C | D | 71. T | F | | |
| 22. A | B | C | D | 47. A | B | C | D | 72. T | F | | |
| 23. A | B | C | D | 48. A | B | C | D | 73. T | F | | |
| 24. A | B | C | D | 49. A | B | C | D | 74. T | F | | |
| 25. A | B | C | D | 50. A | B | C | D | 75. T | F | | |

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

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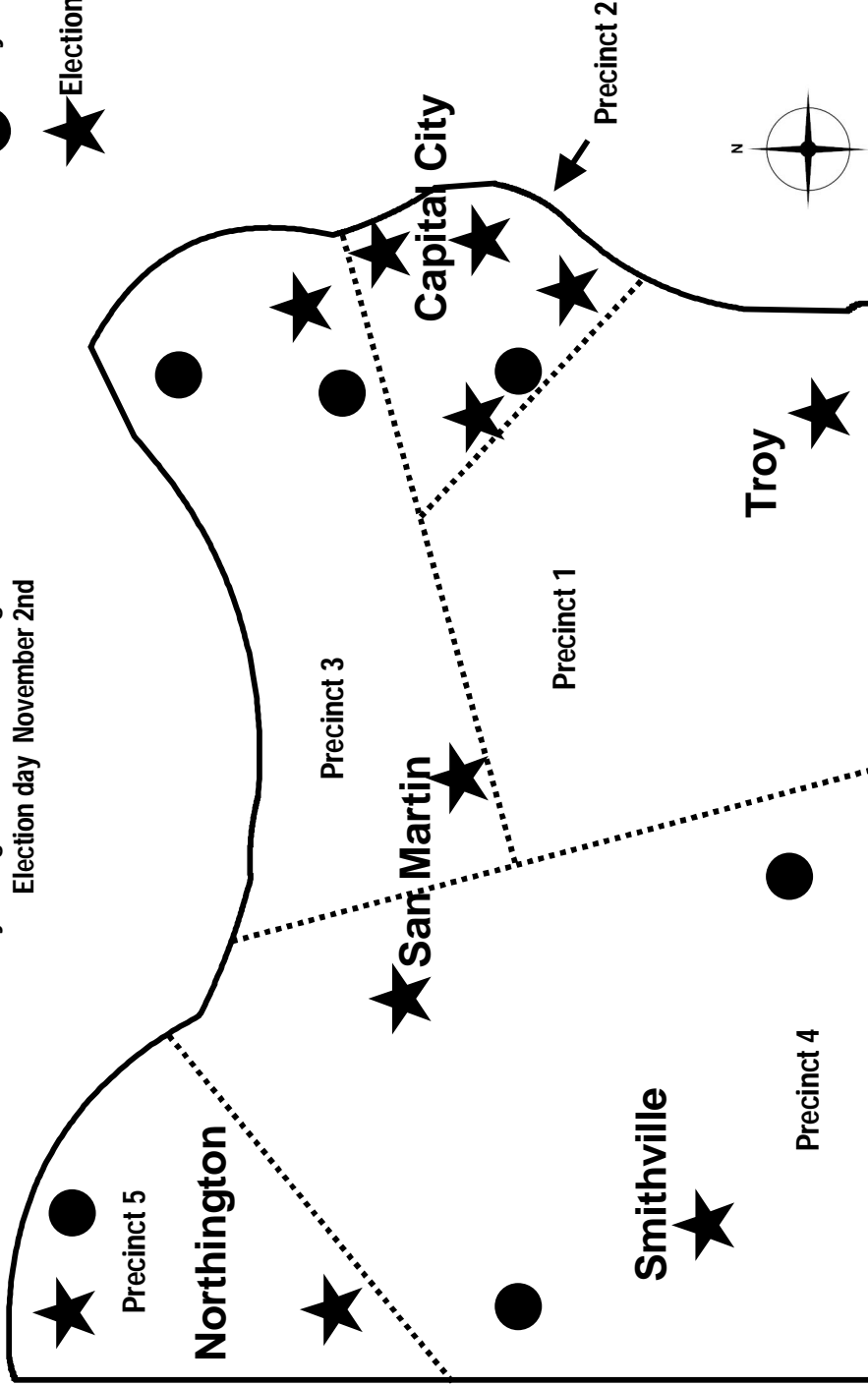
North America Political Relief Map

1. Lake Nicaragua is on the border of what country?
 - a. Canada
 - b. Costa Rica
 - c. Cuba
 - d. Mexico
2. Which of these cities has a population of over 500,000?
 - a. Billings
 - b. Kansas City
 - c. Phoenix
 - d. Salt Lake City
3. Which of the following countries has territory that is located the furthest north?
 - a. Canada
 - b. Greenland
 - c. Russia
 - d. United States
4. Which city is located on the shores of the continent's longest river?
 - a. Boise
 - b. Denver
 - c. Memphis
 - d. Omaha
5. Which of the following capitals is located south of the Tropic Of Cancer?
 - a. Havana
 - b. Mexico City
 - c. San Jose
 - d. San Salvador
6. What do the dotted black line represent?
 - a. Continental Boundary
 - b. International Boundary
 - c. International Date Line
 - d. Latitude Lines
7. How many countries does the Yukon River flow through?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
8. The Davis Strait separates Canada from what other country?
 - a. Greenland
 - b. Iceland
 - c. United States
 - d. Russia
9. How far is it from the capital of Cuba to the capital of Mexico?
 - a. About 800 miles
 - b. About 1,100 miles
 - c. About 1,500 miles
 - d. About 2,000 miles
10. Malpelo Island is a territory of what country?
 - a. Canada
 - b. Colombia
 - c. Costa Rica
 - d. Cuba
11. Which of the following countries is connected by land mass to another continent?
 - a. Guatemala
 - b. Jamaica
 - c. Panama
 - d. United States
12. The Rocky Mountains run primarily through what part of Canada?
 - a. Eastern
 - b. Northern
 - c. Southern
 - d. Western
13. Which of the following countries is on the equator?
 - a. Belize
 - b. Bahamas
 - c. Costa Rica
 - d. None of the above
14. What body is located at 42° N, 81° W
 - a. Lake Winnipeg
 - b. Lake Nicaragua
 - c. Lake Erie
 - d. None of the above
15. What do the white areas with blue lines indicate?
 - a. Different Continents
 - b. Disputed Areas
 - c. Polar Sea Ice
 - d. Unexplored Areas

Lasso County Precinct And Polling Locations

Early voting October 18th through the 29th
Election day November 2nd

● Early Voting and Election Day
★ Election Day Only



1 inch = 2 miles

Precinct Populations

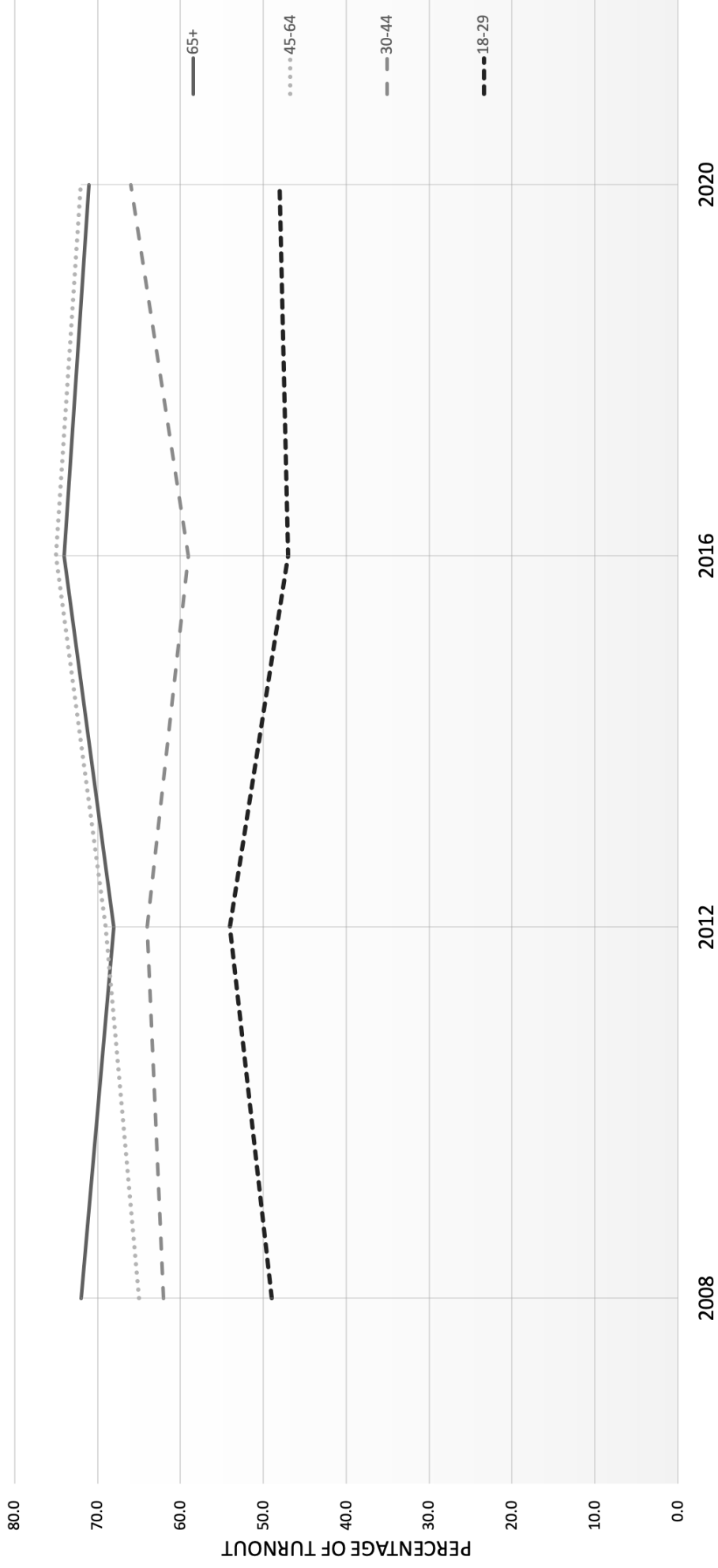
| Precinct Number | Population |
|-----------------|------------|
| 1 | 252,343 |
| 2 | 378,878 |
| 3 | 201,587 |
| 4 | 72,235 |
| 5 | 85,452 |

Only towns/cities with populations over 25,000 are indicated on the map.
County residents may vote early and on election in any precinct.

Lasso County Precinct and Polling Locations

16. When does early voting end?
- October, 18th
 - October, 29th
 - November, 2nd
 - Not indicated
17. One inch on the map equals how many miles?
- 1 inch equals 1 mile
 - 1 inch equals 2 miles
 - 1 inch equals 4 miles
 - Not indicated
18. How many precincts are shown on the map?
- 1
 - 4
 - 5
 - 12
19. What do the dotted lines indicate?
- Precinct Boundary
 - County Boundary
 - Interstate Highway
 - State Line
20. How many early voting sites are in Precinct 1?
- 0
 - 1
 - 2
 - 4
21. Which precinct is the furthest north?
- Precinct 1
 - Precinct 2
 - Precinct 4
 - Precinct 5
22. In Precinct 3, how many sites are available on election day?
- 0
 - 2
 - 4
 - 5
23. Which city extends outside of the county?
- Capital City
 - Northington
 - Smithville
 - Troy
24. How many early voting sites are shown on the map?
- 2
 - 4
 - 6
 - 8
25. Which precinct has the smallest population?
- Precinct 1
 - Precinct 2
 - Precinct 3
 - Precinct 4
- TRUE/FALSE**
26. San Martin is located southeast of Smithville.
27. The heaviest populated area of the map is the western area.
28. The largest precinct by area has the smallest population.
29. There are more sites that offer early voting than those that only offer election day voting.
30. The precinct with the highest population has the most voting sites.

Voting Rate By Age



Voting Rate by Age Group

31. What span of time does the chart cover?
- 1 Year
 - 4 Years
 - 12 Years
 - 16 Years
32. What does the solid black line represent?
- The year 2008
 - The year 2012
 - The year 2016
 - None of the above
33. In what year did voting for those above the age of 65 peak?
- 2008
 - 2012
 - 2016
 - 2020
34. What does the y axis represent?
- Year
 - Percentage of turnout
 - Age Group
 - None of the above
35. How many age groups are there on the graph?
- 4
 - 8
 - 16
 - None of the above
36. How many times did the youngest age group have the highest turnout?
- 0
 - 1
 - 2
 - 4
37. How many data points are displayed on the X axis?
- 0
 - 4
 - 8
 - 12
38. How many age groups had higher turnouts in 2020 compared to 2016?
- 0
 - 1
 - 2
 - 3
39. What percentage of eligible 30 to 44 year olds voted in 2012?
- About 50%
 - About 65%
 - About 75%
 - Under 50%
40. In what year did the highest turnout among any of the age groups occur?
- 2008
 - 2012
 - 2016
 - 2020
- TRUE/FALSE**
41. 2016 had the highest voting percentage for all age groups except 18 to 29 year olds.
42. The oldest age group always had the highest turnout percentage.
43. The year with highest percentage for the 18 to 29 year olds was the year with the lowest percentage for those over 65.
44. Every time turnout increased compared to the previous election in the 30 to 44 group, it increased in the under 29 group.
45. Only one group had its highest turnout in 2020.

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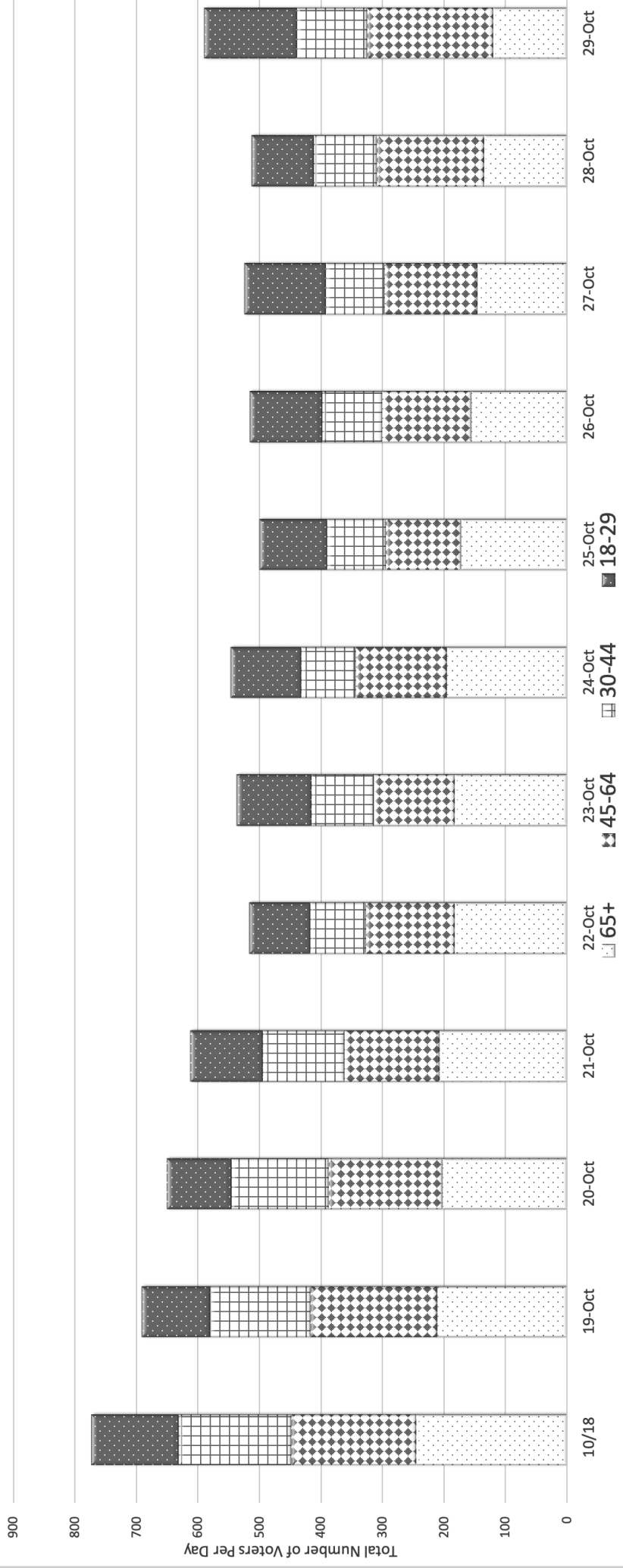
United States: Elevation and Precipitation Maps

46. Which of the following states do the Rocky Mountains not run through?
- Idaho
 - Montana
 - Nevada
 - New Mexico
47. Which state averages 20 to 40 inches of precipitation per year?
- Georgia
 - Connecticut
 - Florida
 - Iowa
48. What part of the country gets the least amount of precipitation?
- Northeast
 - Northwest
 - Southeast
 - Southwest
49. What do the blue lines on the precipitation map indicate?
- Precipitation zones
 - State boundaries
 - Rivers
 - Lakes
50. The city of Chicago is located on the shores of what body of water?
- Atlantic Ocean
 - Pacific Ocean
 - Great Salt Lake
 - Lake Michigan
51. Which of the following cities are below sea level?
- Miami
 - St. Paul
 - Charleston
 - None of the above
52. What do the white areas of the United States elevation map indicate?
- Tundra
 - Polar Ice
 - Different countries
 - None of the above
53. Which city is at the highest elevation?
- El Paso
 - Cleveland
 - Kansas City
 - Boston
54. The highest point in the United States is located in what state?
- Alaska
 - Colorado
 - North Carolina
 - Wyoming
55. The Flint Hills are located in what state?
- Texas
 - Washington
 - Kansas
 - Maine

TRUE/FALSE

56. Virginia gets more rain than Minnesota.
57. Pamlico Sound is off the coast of Maine.
58. On the elevation map, one inch equals 220 kilometers.
59. The cross section only shows the western half of the United States.
60. The shape outlined with black dots in Nevada indicates a seasonal lake.

Precinct 4: Early Voting Numbers By Day



Early Voting Numbers by Day

61. How many elections does this graph represent?
- 1
 - 4
 - 10
 - 14
62. What does a single column represent?
- Votes cast by a particular age group.
 - The total votes cast during the election in Precinct 4.
 - Total votes cast each day in Precinct 4.
 - Percentage of eligible voters.
63. What day had the fewest number of total voters?
- 10/18
 - 10/22
 - 10/25
 - 10/27
64. What does the column with the diamond shapes represent?
- The average number of voters
 - Mid-morning voters
 - Age group 45-64
 - None of the above
65. Which group had the highest single day amount of voters?
- 18-29
 - 30-44
 - 45-64
 - 65+
66. How many groups had the highest number of early voters on the first day of early voting?
- 0
 - 1
 - 2
 - 3

67. The specific date is represented on what?
- The x axis
 - The y axis
 - The darkest part of each column
 - None of the above
68. How many times did the total amount of daily voters exceed 800?
- 0
 - 2
 - 3
 - 4
69. On how many days were there more 45-64 voters than 30-44 voters?
- 0
 - 4
 - 8
 - 12
70. About how many 18-29 year olds voted on the last day of early voting?
- About 100
 - About 150
 - About 200
 - About 250

TRUE/FALSE

71. More votes were cast on the first day of early voting than any other early voting day.
72. The number of 65+ voters fell every day.
73. On October 25th, the group with the least amount of voters was the 30-44 year olds.
74. Early voting lasted at least 12 days.
75. The columns are organized from the oldest voters at the bottom to the youngest at the top.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
5/6 Invitational District
Answer Key

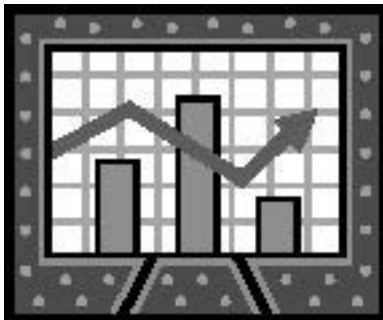
- | | | |
|-------|-------|-------|
| 1. B | 26. F | 51. D |
| 2. C | 27. F | 52. C |
| 3. B | 28. T | 53. A |
| 4. C | 29. F | 54. A |
| 5. A | 30. T | 55. C |
| 6. B | 31. C | 56. T |
| 7. B | 32. D | 57. F |
| 8. A | 33. C | 58. F |
| 9. B | 34. B | 59. F |
| 10. B | 35. A | 60. T |
| 11. C | 36. A | 61. A |
| 12. D | 37. B | 62. C |
| 13. D | 38. C | 63. B |
| 14. C | 39. B | 64. C |
| 15. C | 40. C | 65. D |
| 16. B | 41. F | 66. C |
| 17. B | 42. F | 67. A |
| 18. C | 43. T | 68. A |
| 19. A | 44. T | 69. D |
| 20. A | 45. T | 70. B |
| 21. D | 46. C | 71. T |
| 22. C | 47. D | 72. F |
| 23. A | 48. D | 73. T |
| 24. C | 49. C | 74. T |
| 25. D | 50. D | 75. T |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

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Asia Political Relief Map

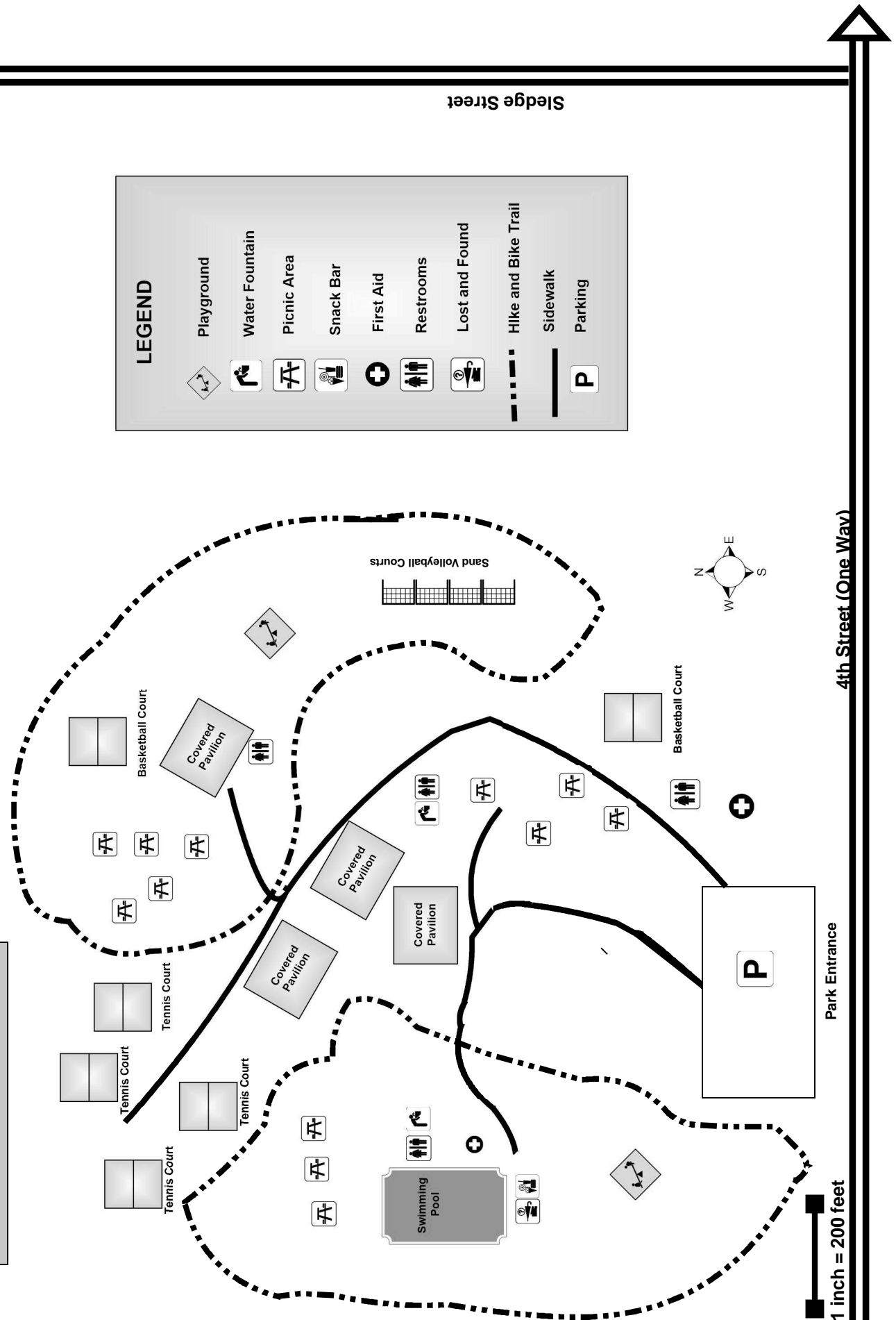
- The Caspian Sea forms part of the northern border of what country?
 - Indonesia
 - Iran
 - Japan
 - Turkey
- What country's capital is located closest to the Tropic of Cancer?
 - Russia
 - Yemen
 - Thailand
 - Oman
- Disregarding the capital city Kabul, how many indicated cities in Afghanistan have a population over 500,000?
 - 0
 - 1
 - 2
 - 3
- The Deccan Plateau is located in what country?
 - Uzbekistan
 - Philippines
 - India
 - None of the above
- Which Chinese city is located about 900 miles from Beijing?
 - Xian
 - Dalian
 - Urumqi
 - Chongqing
- What does the square around Singapore represent?
 - Continental Boundary
 - International Boundary
 - International Date Line
 - Small country
- Which body of water does not form part of Russia's border?
 - Red Sea
 - Kara Sea
 - Gulf of Anadyr
 - Sea of Japan
- Male is the capital of what country?
 - Turkey
 - Maldives
 - Mongolia
 - South Korea
- The Caucasus Mts. separate Georgia from what?
 - Black Sea
 - Europe
 - Africa
 - Iraq
- Sakhalin Island is a territory of what country?
 - Philippines
 - Japan
 - Russia
 - Cambodia
- Which river runs through the northeastern portion of Russia?
 - Kolyma
 - Ob
 - Amur
 - Volga
- Which city of over 1,000,000 is the furthest west?
 - Omsk, Russia
 - Taipei, Taiwan
 - Mecca, Saudi Arabia
 - Surabaya, Indonesia
- What city is located at 7.19° N, 125.45° E?
 - Pusan, South Korea
 - Colombo, Sri Lanka
 - Davao, Philippines
 - Dalian, China
- The largest lake on the continent is located in what country?
 - Russia
 - China
 - India
 - None of the above
- The Hindu Kush runs through what country?
 - India
 - Sri Lanka
 - Afghanistan
 - China

Capital City

Park Complex

Gates Open Daily: 8 a.m. to 8 p.m.

Covered Pavilions Available For Rent
Call (555) 102-10202 for reservations



LEGEND

- Playground
- Water Fountain
- Picnic Area
- Snack Bar
- First Aid
- Restrooms
- Lost and Found
- Hike and Bike Trail
- Sidewalk
- Parking

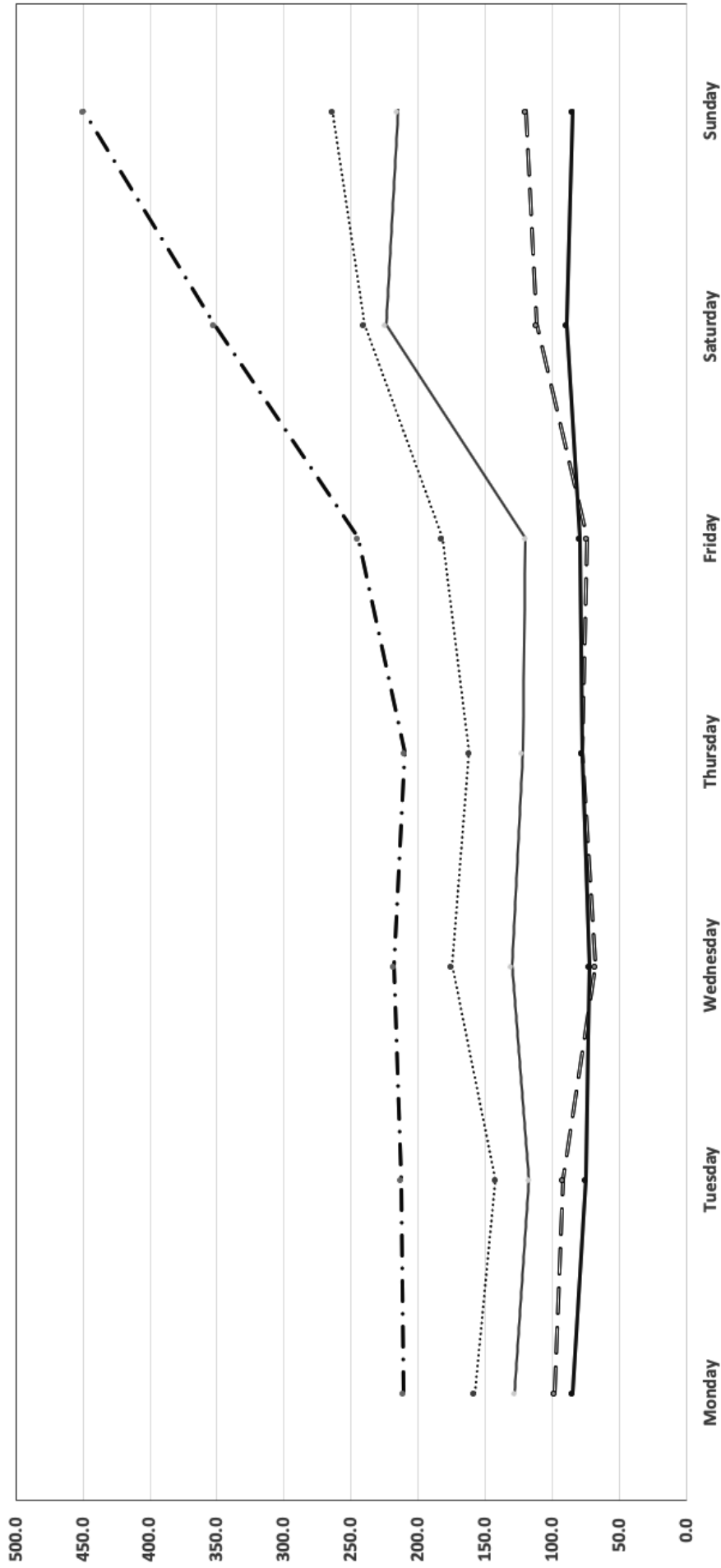
4th Street (One Way)

1 inch = 200 feet

Capital City Park Complex Map

16. How many days of the week is the park open?
- 4
 - 5
 - 7
 - Not indicated
17. How far is it from the parking lot to the closest covered pavilion?
- About 200 feet
 - About 400 feet
 - About 600 feet
 - About 800 feet
18. How many first aid stations are shown on the map?
- 1
 - 2
 - 3
 - 5
19. How many tennis courts are located in the northern half of the park?
- 0
 - 1
 - 3
 - 4
20. How many hike and bike trails are shown on the map?
- 0
 - 1
 - 2
 - 4
21. Which of the following can be found near the swimming pool?
- First Aid Station
 - Restrooms
 - Lost and Found
 - All of the above
22. What direction does 4th street run?
- East to west
 - West to east
 - North to south
 - South to north
23. How many sidewalks lead into the park from the parking lot?
- 0
 - 1
 - 2
 - 4
24. From the parking lot, what direction do visitors need to go to get to the sand volleyball courts?
- Northeast
 - Northwest
 - Southeast
 - Southwest
25. How many areas or structures are available for reservations?
- 0
 - 3
 - 4
 - 10
- TRUE/FALSE**
26. The park is located on the southeast corner of 4th Street and Sledge Street.
27. There are more tennis courts than basketball courts on the map.
28. All covered pavilions have bathrooms next to them.
29. There is a playground just north of the swimming pool.
30. A single hike and bike trail runs around the perimeter of the whole park.

2020 Average Daily Park Visitors During Summer Months: June/July/August



2020 Average Daily Park Visitors

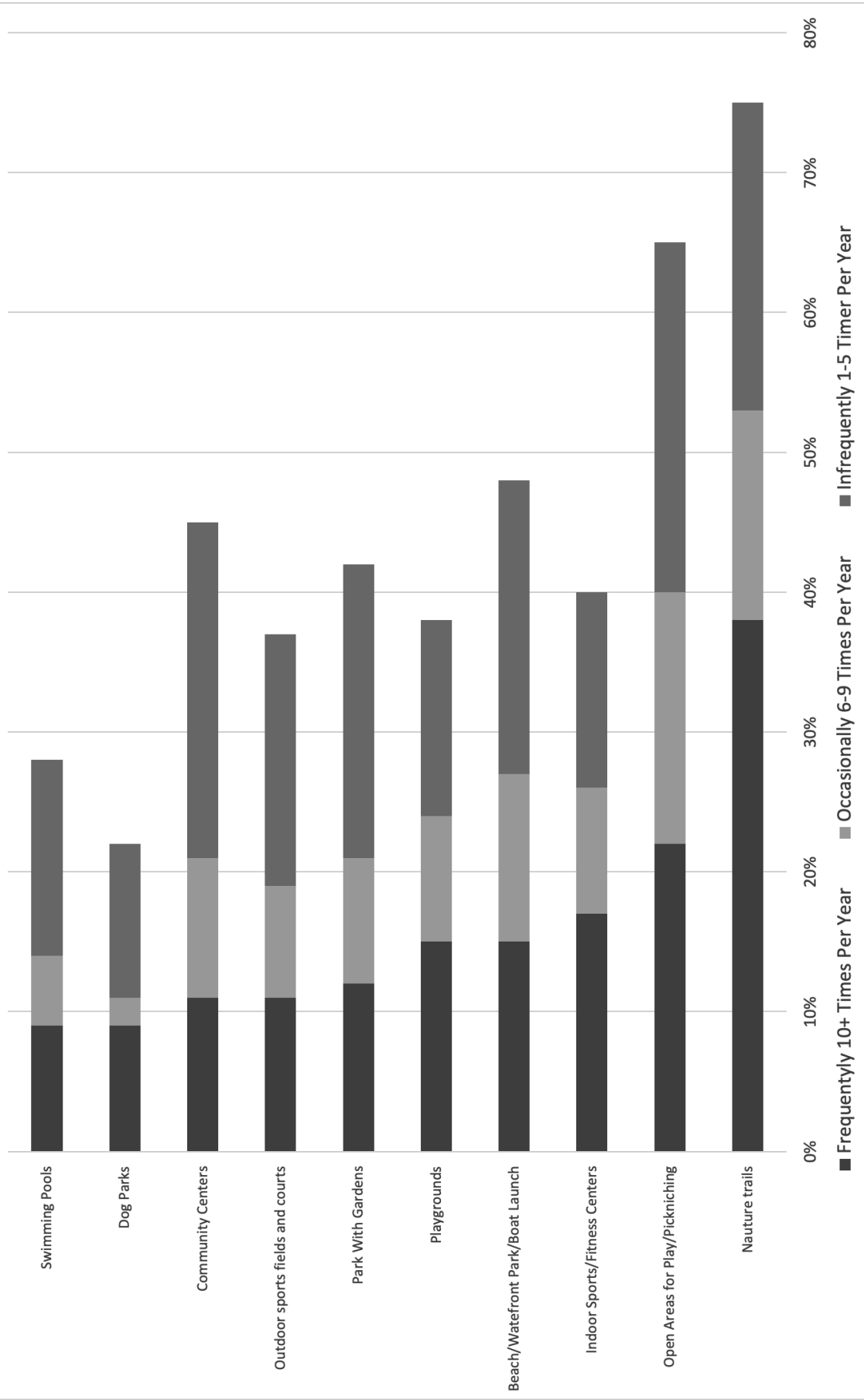
31. Over what span of time was the data presented in this chart collected?
- 7 days
 - 3 months
 - 1 year
 - None of the above
32. What information is given on the x axis?
- The month
 - The day of the week
 - The weekly average number of visitors
 - The daily average number of visitors
33. On how many different days of the week do any of the individual parks exceed 300 visitors?
- 0
 - 2
 - 5
 - 7
34. What does the solid line represent?
- Monday
 - Sunday
 - Sanchez Park
 - Paisley Park
35. Which park had the least variation in numbers from the busiest day to its least busy day?
- Morris Park
 - Potter Park
 - Flower Park
 - Sanchez Park
36. How many parks had reduced numbers on Thursday compared to the day before?
- 0
 - 1
 - 2
 - 3
37. What day had the lowest number of visitors for all parks combined?
- Monday
 - Tuesday
 - Wednesday
 - Thursday
38. The data for how many parks is displayed on the graph?
- 5
 - 7
 - 12
 - 17
39. How many parks saw an increase in numbers each day of the week?
- 0
 - 1
 - 2
 - 3
40. Which park averaged the most visitors every day?
- Morris Park
 - Potter Park
 - Flower Park
 - Sanchez Park
- TRUE/FALSE**
41. The chart shows the exact number of visitors to a given park in any single calendar day.
42. Every park had the most visitors on Sunday.
43. The biggest single day increase in visitors at any of the parks happened at Potter Park on Saturdays.
44. The same park had the highest average number of visitors on every day of the week.
45. Sanchez Park had the least amount visitors on more days than any other park.

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Asia: Land Cover and Regional Political Relief Maps

46. One inch equals 280 miles on which Asian Regional Political Relief map?
- Southern Asia
 - Southeastern Asia
 - Southwestern Asia
 - Central Asia
47. What population range is the city of Samarqand, Uzbekistan in?
- Over 2,000,000
 - Over 1,000,000
 - Between 500,000 to 1,000,000
 - Under 500,000
48. What is the dominant land cover type on the Arabian Peninsula?
- Cropland
 - Grassland
 - Semi-desert and desert
 - Tundra
49. What do the pink lines on the land cover map represent?
- Land cover zones
 - International boundaries
 - Rivers
 - Lakes
50. Ankara is the capital of what country?
- North Korea
 - Turkey
 - Russia
 - Indonesia
51. The Grand Canal in China runs mainly through what type of land cover?
- Cropland
 - Grassland
 - Tropical rain forest
 - None of the above
52. What does the large gray lettering on the land cover map mark?
- Land cover type
 - Country name
 - Regional feature
 - Continent
53. What Indian city is on the banks of the Chambal River?
- Kota
 - Madurai
 - Pune
 - All of the above
54. How far is it from Kyoto, Japan to the nation's capital city?
- About 100 miles
 - About 225 miles
 - About 350 miles
 - About 475 miles
55. The Gobi Desert extends through which country?
- Russia
 - Iran
 - Iraq
 - Mongolia
- TRUE/FALSE**
56. Indonesia's capital is north of the equator.
57. A portion of China's eastern border includes disputed territory.
58. Wetlands can be found across central Russia.
59. Tundra is the land cover type on the Taymyr Peninsula.
60. The Korea Strait separates North Korea and South Korea.

Survey Results: Park Facilities Used Most Frequently By Respondents



Survey Results: Park Facilities Use

61. How many types of facilities are represented on the graph?
- 1
 - 3
 - 10
 - 16
62. What does the lightest section of each column represent?
- A type of park facility
 - The percentage of respondents who said they frequently visit that type of facility
 - The percentage of responders who said they occasionally visit that type of facility
 - The overall percentage of respondents
63. How many responses were included in the survey?
- 10
 - 76
 - 100
 - Not indicated
64. "Infrequently" in this survey means what?
- The respondent visits that facility daily
 - The respondent visits that facility weekly
 - The respondent visits that facility six to nine times per year
 - The respondent visits that facility one to five times per year
65. Which type of facility is visited by the highest percentage of respondents?
- Swimming pools
 - Park with gardens
 - Nature trails
 - Playgrounds
66. What type of visitor made up the highest percentage at parks with gardens?
- Infrequent
 - Occasional
 - Frequent
 - Cannot be determined
67. Which type of facility had the lowest percentage of occasional visitors?
- Swimming pools
 - Nature trails
 - Dog parks
 - Outdoor sports fields and courts
68. Which of the following had a higher percentage of frequent visitors than infrequent visitors?
- Nature trails
 - Community centers
 - Open areas
 - None of the above
69. How many types of facilities had more than fifty percent of respondents say they visited at least once per year?
- 0
 - 2
 - 4
 - 10
70. What percentage of respondents said they visited playgrounds occasionally?
- About 5%
 - About 10%
 - About 20%
 - About 25%
- TRUE/FALSE**
71. Nature trails received the highest percentage of occasional visitors.
72. The percentage of occasional visitors is the lowest type of visitor for every type of facility.
73. About 24% of respondents said they visited community centers infrequently.
74. The highest percentage of swimming pool users will visit the facility more than ten times per year.
75. The columns are organized from the highest percentage of combined users to the lowest.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
5/6 Fall District
Answer Key

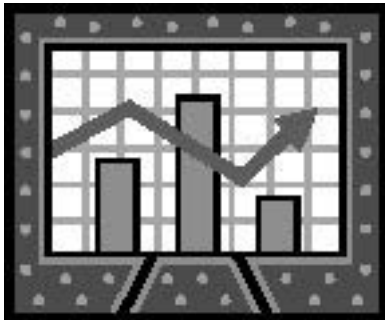
| | | |
|--------------|--------------|--------------|
| 1. B | 26. F | 51. A |
| 2. D | 27. T | 52. D |
| 3. A | 28. F | 53. A |
| 4. C | 29. F | 54. B |
| 5. D | 30. F | 55. D |
| 6. D | 31. B | 56. F |
| 7. A | 32. B | 57. F |
| 8. B | 33. B | 58. T |
| 9. B | 34. C | 59. T |
| 10. C | 35. D | 60. F |
| 11. A | 36. D | 61. C |
| 12. A | 37. B | 62. C |
| 13. C | 38. A | 63. D |
| 14. D | 39. A | 64. D |
| 15. C | 40. C | 65. C |
| 16. C | 41. F | 66. A |
| 17. B | 42. F | 67. C |
| 18. B | 43. F | 68. A |
| 19. D | 44. T | 69. B |
| 20. C | 45. T | 70. B |
| 21. D | 46. D | 71. F |
| 22. B | 47. C | 72. T |
| 23. C | 48. C | 73. T |
| 24. A | 49. B | 74. F |
| 25. C | 50. B | 75. F |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

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Australia Political Relief Map

1. The capital of what country can be found at 17.73° S 168.32° E?
 - a. Indonesia
 - b. Australia
 - c. Tonga
 - d. Vanuatu
2. Where is the Great Barrier Reef located?
 - a. Off the southwestern coast of Australia
 - b. Off the northeastern coast of Australia
 - c. Off the northwestern coast of Australia
 - d. Off the southeastern coast of Australia
3. What is the population range of Da Nang, Vietnam?
 - a. Over 500,000
 - b. Between 100,000 to 500,000
 - c. Between 100,000 to 50,000
 - d. Under 50,000
4. The Ratak Chain of islands is part of what nation?
 - a. Kiribati
 - b. Federated States of Micronesia
 - c. Solomon Islands
 - d. Marshall Islands
5. What do the white dots across Indonesia indicate?
 - a. Continental boundary
 - b. International boundary
 - c. Island groups that share a government
 - d. State boundary
6. Which of the following countries does not lie on the equator?
 - a. Indonesia
 - b. Malaysia
 - c. Kiribati
 - d. Gilbert Islands
7. Which country's capital is the furthest south?
 - a. China
 - b. Tonga
 - c. New Zealand
 - d. Australia
8. The Cook Islands are a territory of what country?
 - a. Japan
 - b. New Zealand
 - c. United States
 - d. Australia
9. How far is it from Perth, Australia to Brisbane Australia?
 - a. About 1,000 miles
 - b. About 2,500 miles
 - c. About 3,500 miles
 - d. About 4,000 miles
10. The Luzon Strait separates Taiwan from what other country?
 - a. Philippines
 - b. China
 - c. Vietnam
 - d. Japan
11. The Mekong River flows through which of the following countries?
 - a. Cambodia
 - b. Indonesia
 - c. Australia
 - d. East Timor
12. Which of the following island shares the same government with the Disappointment Islands?
 - a. Hall Islands
 - b. Laysan Island
 - c. Bora-Bora
 - d. Tasmania
13. Heading east from Gold Coast, Australia, for which destination would you need to add a day?
 - a. Wellington, New Zealand
 - b. Port-Vila, Vanuatu
 - c. Suva, Fiji
 - d. Honolulu, Hawaiian Islands (U.S.)
14. Which of the following is located in the Gulf of Carpentaria?
 - a. Daito Islands
 - b. Wellesley Island
 - c. Kangaroo Island
 - d. None of the above
15. The Southern Alps are located in what country?
 - a. China
 - b. Australia
 - c. New Zealand
 - d. Indonesia

Garcia Street (One Way)

Vendor Parking

Tudor's Tulips



Pearce's



Granny's Groceries



Health Store

Taco Hut



Sushi Palace



Foodie Market



Silver Stems



Farm To You



Scatch Farms



Vegetable Mart



Vitamin Stop



Caleb's



Yes Ramen!



Burgers and More



BBQ Shack



Fresh Sea Food



Andy's Pizza



Public Parking

Main Street

Center City
Outdoor Market
Saturdays and Sundays
9:00 a.m. to 9:00 p.m.
March through August

Legend



Flower Shop



Produce Shop



Restaurant



Grocery Store



Health Store



Picnic Area



Water Fountain



Restroom



Center City Outdoor Market

16. What does the lettuce icon represent?
- Flower Shop
 - Produce Shop
 - Grocery Store
 - Health Store
17. How many grocery stores are indicated on the map?
- 0
 - 1
 - 2
 - 3
18. What part of the map is public parking located?
- West
 - East
 - North
 - South
19. Two inches equals how many feet on the map?
- 100
 - 200
 - 2000
 - Not indicated
20. How many health stores are located west of Sushi Palace?
- 0
 - 1
 - 2
 - 4
21. How many months of the year is the market open?
- 4
 - 5
 - 6
 - 7
22. What time does the market open on Fridays?
- 9:00 a.m.
 - 9:00 p.m.
 - It is not open on Fridays
 - Not indicated
23. What restaurant is located the furthest west?
- Yes Ramen!
 - Andy's Pizza
 - Sushi Palace
 - BBQ Shack
24. Vendors must come from what direction to access vendor parking?
- North
 - West
 - East
 - South
25. How many streets are indicated on the map?
- 0
 - 2
 - 3
 - 4
- TRUE/FALSE**
26. Main street is a two-way street.
27. Most restaurants are located in the northern end of the market.
28. Restrooms are located on the southeastern and northeastern corners of the market.
29. All water fountains are located near restaurants.
30. There are more restaurants than any other type of vendor.

Average Produce Prices
Star and Central Counties
August 2020



Produce Prices

31. How many months does the information in this graph represent?
- 1
 - 3
 - 12
 - None of the above
32. What information is given on the y axis?
- The type of vendor
 - The produce type
 - The price of an item
 - The month
33. What do the lighter columns represent?
- Farmers market prices
 - Grocery store prices
 - June prices
 - July prices
34. What item is the most expensive at grocery stores?
- Kale
 - Tomatoes
 - Strawberries
 - Zucchini
35. How many items are priced the same at grocery stores and farmers markets?
- 0
 - 1
 - 2
 - 4
36. How many different types of produce are represented on the chart?
- 2
 - 4
 - 8
 - 16
37. How many items were priced lower at farmers markets?
- 0
 - 2
 - 3
 - 4
38. Which item sold the most units at grocery stores in August?
- Strawberries
 - Tomatoes
 - Lettuce
 - Not indicated
39. How many items are priced above \$3.00 at farmers' markets?
- 0
 - 1
 - 2
 - 4
40. Which item had the largest price difference?
- Tomatoes
 - Strawberries
 - Lettuce
 - Cabbage
- TRUE/FALSE**
41. The chart provides the price of an individual item on any given day.
42. The data was gathered from a single county.
43. Only two items at either type of vendor were priced below \$2.00.
44. If a shopper bought one of each item at both, they would pay more at a farmers market.
45. Kale is the only item that was priced the same in both categories.

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Australia: Land Cover and Elevation Maps

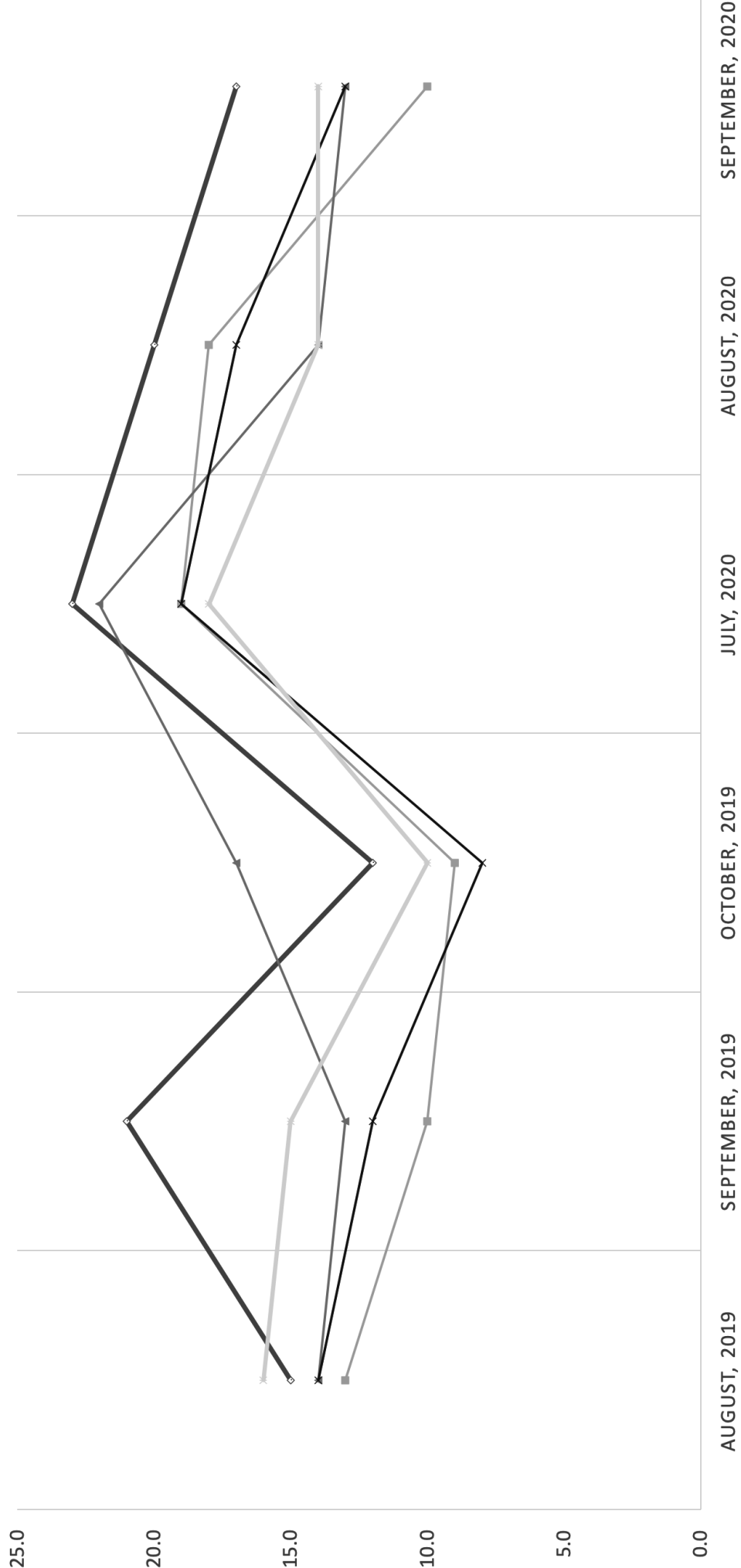
46. What is the vertical exaggeration of the cross section?
- 78 to 1
 - 1 to 420
 - 1 to 298
 - None of the above
47. In what area of Australia is the Barkly Tableland located?
- North
 - South
 - East
 - West
48. Which of the following is located between Steward Island and New Zealand?
- Torres Strait
 - Foveaux Strait
 - Flores Sea
 - Bay of Plenty
49. What is the elevation level of most of the Western Plateau?
- Below sea level
 - 0-150 meters
 - 150 to 300 meters
 - 300 to 600 meters
50. Elevation levels of 0 to 150 meters can be found in what area of New Guinea?
- South
 - North
 - East
 - West
51. What city with a population of over 500,000 can be found at 153° E?
- Brisbane
 - Townsville
 - Melbourne
 - None of the above
52. How much of the Australian continent does the outback cover?
- 20%
 - 40%
 - 60%
 - 80%
53. Where is the Wallace Line located?
- Coral Sea
 - Bass Strait
 - Makassar Strait
 - Cream Sea
54. What is the elevation level of Kati Thanda-Lake Eyre?
- Below sea level
 - 0-150 meters
 - 150 to 300 meters
 - 300 to 600 meters
55. What does a solid black triangle on the elevation map represent?
- Country capital
 - Dry lake
 - Waterfall
 - Mountain peak

TRUE/FALSE

56. Jaya Peak has an elevation of over 6,000 meters.
57. The land cover of the Nullarbor Plain is grassland.
58. Species east of the Wallace Line are related to Australian Animals.
59. Sand dunes can be found in Central Australia.
60. Lake Torrens is a seasonal lake.

FARMERS MARKETS SMALL BASKET PRICES

—◇— Fresh Market
 —■— Market On The Square
 —▲— Gracia's Farmers Market
 —x— Gardner's Market
 —*— Country Market



Farmers Markets Small Basket Prices

61. How many markets are represented on the graph?
- 1
 - 3
 - 5
 - 6
62. What does the line with a triangle marker represent?
- October, 2019
 - August, 2020
 - Garcia's Farmers Market
 - Country Market
63. What is the earliest month for which data is presented?
- August, 2018
 - July, 2020
 - August, 2019
 - July, 2019
64. The price of what item is being tracked on the graph?
- Small baskets
 - Large baskets
 - Apples
 - Not indicated
65. What month saw the highest price at any of the markets?
- October, 2019
 - July, 2020
 - August, 2020
 - September, 2020
66. Which market had the highest price in September, 2020?
- Fresh Market
 - Market on the Square
 - Gardner's Market
 - Country Market
67. In how many months did Gardner's Market have the lowest price?
- 0
 - 1
 - 2
 - 3
68. How many different months of data are presented on the graph?
- 2
 - 6
 - 12
 - 13
69. Which market saw a jump in price from September, 2019 to October, 2019?
- Fresh Market
 - Garcia's Farmers Market
 - Gardner's Market
 - Country Market
70. Which market had the lowest price the most months?
- Fresh Market
 - Gardner's Market
 - Market on the Square
 - Garcia's Market
- TRUE/FALSE**
71. Prices fell at all locations in September, 2020 compared to the previous month.
72. The price never fell below \$10 at any of the locations.
73. The lowest price at Fresh Market occurred in October, 2019.
74. Fresh Market had the highest price in all of the months on the graph.
75. The graph presents data for all months between August, 2019 and September, 2020.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
5/6 Spring District
Answer Key

| | | |
|-------|-------|-------|
| 1. D | 26. T | 51. A |
| 2. B | 27. F | 52. D |
| 3. A | 28. F | 53. C |
| 4. D | 29. T | 54. A |
| 5. A | 30. T | 55. D |
| 6. B | 31. A | 56. F |
| 7. C | 32. C | 57. F |
| 8. B | 33. B | 58. T |
| 9. B | 34. C | 59. T |
| 10. A | 35. B | 60. T |
| 11. A | 36. C | 61. C |
| 12. C | 37. B | 62. C |
| 13. D | 38. D | 63. C |
| 14. B | 39. D | 64. A |
| 15. C | 40. C | 65. B |
| 16. B | 41. F | 66. A |
| 17. D | 42. F | 67. B |
| 18. D | 43. T | 68. B |
| 19. D | 44. T | 69. B |
| 20. B | 45. F | 70. C |
| 21. C | 46. A | 71. F |
| 22. C | 47. A | 72. F |
| 23. A | 48. B | 73. T |
| 24. B | 49. D | 74. F |
| 25. B | 50. A | 75. F |

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 250. Initials _____

_____ out of 250. Initials _____

Papers contending to place:

_____ out of 250. Initials _____



**University Interscholastic League
A+ Mathematics Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 6 7 8

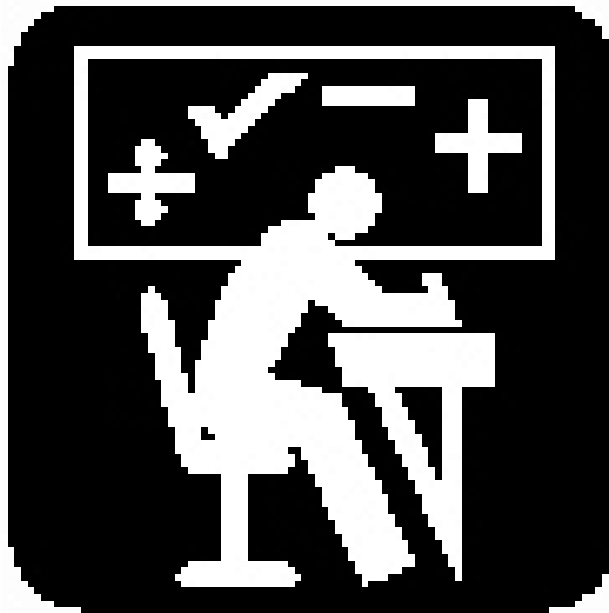
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|-----|---|---|---|---|---|-----|---|---|---|---|---|
| 1. | A | B | C | D | E | 26. | A | B | C | D | E |
| 2. | A | B | C | D | E | 27. | A | B | C | D | E |
| 3. | A | B | C | D | E | 28. | A | B | C | D | E |
| 4. | A | B | C | D | E | 29. | A | B | C | D | E |
| 5. | A | B | C | D | E | 30. | A | B | C | D | E |
| 6. | A | B | C | D | E | 31. | A | B | C | D | E |
| 7. | A | B | C | D | E | 32. | A | B | C | D | E |
| 8. | A | B | C | D | E | 33. | A | B | C | D | E |
| 9. | A | B | C | D | E | 34. | A | B | C | D | E |
| 10. | A | B | C | D | E | 35. | A | B | C | D | E |
| 11. | A | B | C | D | E | 36. | A | B | C | D | E |
| 12. | A | B | C | D | E | 37. | A | B | C | D | E |
| 13. | A | B | C | D | E | 38. | A | B | C | D | E |
| 14. | A | B | C | D | E | 39. | A | B | C | D | E |
| 15. | A | B | C | D | E | 40. | A | B | C | D | E |
| 16. | A | B | C | D | E | 41. | A | B | C | D | E |
| 17. | A | B | C | D | E | 42. | A | B | C | D | E |
| 18. | A | B | C | D | E | 43. | A | B | C | D | E |
| 19. | A | B | C | D | E | 44. | A | B | C | D | E |
| 20. | A | B | C | D | E | 45. | A | B | C | D | E |
| 21. | A | B | C | D | E | 46. | A | B | C | D | E |
| 22. | A | B | C | D | E | 47. | A | B | C | D | E |
| 23. | A | B | C | D | E | 48. | A | B | C | D | E |
| 24. | A | B | C | D | E | 49. | A | B | C | D | E |
| 25. | A | B | C | D | E | 50. | A | B | C | D | E |

INVITATIONAL 2021-2022

A+ ACADEMICS



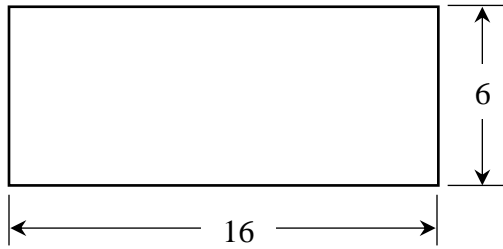
University Interscholastic League



Mathematics

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

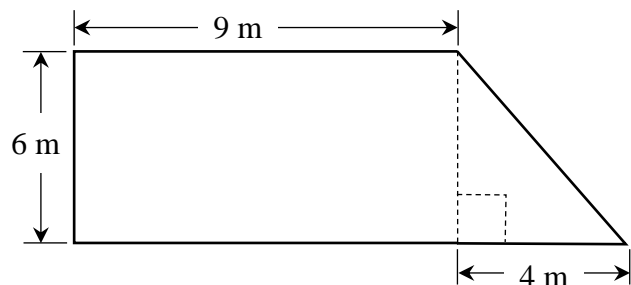
2021 – 2022 University Interscholastic League JH/MS Mathematics Contest A

- (1) Evaluate: $3^{-1} \times (6^0 + 5^2 + 1)$
A) 27 B) 18 C) 12 D) 9 E) -81
- (2) The product of twenty-four and twelve point five percent is equal to what amount?
A) 3 B) 2.88 C) 288 D) 300 E) 12
- (3) What is the ratio of ounces in two cups to one quart?
A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) 4 D) 2 E) $\frac{3}{4}$
- (4) 1.5 square centimeters = _____ square millimeters.
A) 15 B) 0.15 C) 150 D) 0.0015 E) 1500
- (5) What is the area of a circle with a diameter of 8-inches?
A) 64 in^2 B) $64\pi \text{ in}^2$ C) 16 in^2 D) $4\pi \text{ in}^2$ E) None of These
- (6) How many minutes are between 8:45 AM and 3:30 PM of the same day?
A) 420 minutes B) 405 minutes C) 435 minutes D) 445 minutes E) 535 minutes
- (7) If the sales tax for an item is $8\frac{1}{2}\%$, what is the sales tax for an item that costs \$100?
A) \$82.50 B) \$0.83 C) \$1.83 D) \$8.50 E) \$8.05
- (8) How many whole numbers will evenly divide into thirty-six?
A) 9 B) 8 C) 12 D) 36 E) 18
- (9) 88 feet per second (ft/s) = _____ miles per hour (mph).
A) 176 mph B) $4\frac{2}{3}$ mph C) 60 mph D) 45 mph E) 30 mph
- (10) What is the ratio of perimeter to area of the figure to the right?
A) $\frac{48}{13}$ D) $\frac{13}{48}$
B) $\frac{11}{48}$ E) $\frac{11}{24}$
C) 16
- 
- (11) First class postage currently costs 55¢. How many of these stamps can be purchased with \$20?
A) 35 B) 36 C) 37 D) 38 E) 110
- (12) Pi, the irrational number, is defined as
A) the ratio of the circumference of a circle to the area of the circle.
B) the ratio of the circumference of a circle to the length of its diameter.
C) the ratio of the area of a circle to the length of its radius.
D) the ratio of the area of a circle to the circumference of the circle.
E) 3.1415.

- (13) This season, a baseball team increases ticket prices by 15% over the previous season's prices. How much will a ticket cost this season that had a price of \$24 the previous season?
 A) \$24.36 B) \$26.40 C) \$25.40 D) \$36.00 E) \$27.60
- (14) A woodworking class spends \$5 for materials to make yo-yos. The class sells the yo-yos for \$2 each. How much profit would the class make if the class made and sold 15 yo-yos?
 A) \$30 B) \$75 C) \$10 D) \$20 E) \$25
- (15) $6\frac{1}{3} \times 9\frac{1}{3} =$
 A) $54\frac{1}{9}$ B) $54\frac{1}{6}$ C) $59\frac{1}{9}$ D) $15\frac{1}{6}$ E) $69\frac{1}{3}$
- (16) If $1957 - a9 = 18b8$, where a and b are digits, what does $a + b$ equal?
 A) 4 B) 5 C) 10 D) 14 E) 15
- (17) If $\frac{3}{8} + \frac{1}{n} = \frac{1}{4}$, then $n =$
 A) $-\frac{1}{4}$ B) $-\frac{1}{8}$ C) $\frac{3}{32}$ D) 4 E) -8
- (18) If two numbers differ by 2 and their sum is 20, what is the larger number?
 A) 8 B) 9 C) 10 D) 11 E) 12
- (19) A rectangle and a square have equal perimeters. The area of the square is 64 square inches and the length of the rectangle is 10 inches. What is the width of the rectangle?
 A) 6-in. B) 8-in. C) 12-in. D) 18-in. E) 32-in.
- (20) In a class of 40 students, 18 said they liked apple pie, 15 said they liked chocolate cake and 12 said they did not like either. How many students in the class liked both pie and cake?
 A) 3 B) 5 C) 7 D) 10 E) 15
- (21) One quarter mile = _____ feet.
 A) 440 feet B) 5280 feet C) 1320 feet D) 1760 feet E) 880 feet

- (22) What is the area of the figure to the right?

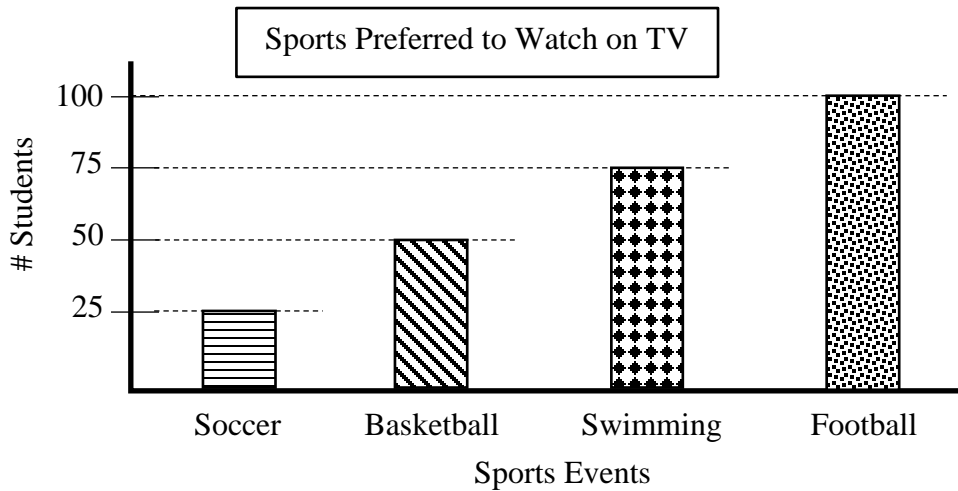
- A) 66 m^2
 B) 54 m^2
 C) 78 m^2
 D) 42 m^2
 E) 70 m^2



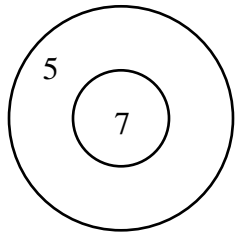
- (23) Maria set a school record for most points in a single basketball game when her team scored 48 points. The six other players on her team averaged 3.5 points each. How many points did Maria score to set her school record?
 A) 32 B) 21 C) 25 D) 27 E) 17

- (24) What is the average of the two largest prime numbers less than 40?
 A) 34 B) 38 C) 37 D) 30 E) 17

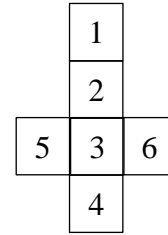
For problems #25 – #28 please use the bar chart graph below.



- (25) Students at Alan Shepard Middle School were surveyed recently as to the sporting event they most liked to watch on TV. According to the survey bar graph, how many total students were surveyed?
 A) 100 B) 150 C) 175 D) 200 E) 250
- (26) Students at Alan Shepard Middle School were surveyed recently as to the sporting event they most liked to watch on TV. According to the survey bar graph, what percentage of the students preferred to watch basketball?
 A) 20% B) 25% C) 50% D) $66\frac{2}{3}\%$ E) 75%
- (27) Students at Alan Shepard Middle School were surveyed recently as to the sporting event they most liked to watch on TV. If there are a total of 825 students enrolled at the surveyed school, how many students did not answer the survey?
 A) 325 B) 425 C) 575 D) 625 E) 675
- (28) Students at Alan Shepard Middle School were surveyed recently as to the sporting event they most liked to watch on TV. If you randomly picked one of the students that answered the survey, what is the probability that the student enjoyed watching soccer on TV?
 A) $\frac{1}{4}$ B) $\frac{1}{3}$ C) $\frac{3}{4}$ D) $\frac{1}{5}$ E) $\frac{1}{10}$
- (29) Noah is going to the store. One quarter of the way to the store, he stops to talk with Wes. He then continues for 12 km and reaches the store. How many kilometers does he travel altogether?
 A) 15 km B) 16 km C) 20 km D) 24 km E) 48 km
- (30) If $x = 4$ and $3x + 2y = 30$, what is the value of y ?
 A) 3 B) 4 C) 6 D) 9 E) 18
- (31) If $5^{(x+2)} = 200$, then 5^x equals what number?
 A) 25 B) 125 C) 8 D) 2000 E) 10

- (32) A pro football player's autograph was once worth \$100. The autograph then dropped 30% in value. If it then increased by 40%, what is its value now?
 A) \$100 B) \$98 C) \$90 D) \$78 E) \$48
- (33) One soccer ball and one soccer shirt together cost \$100. Two soccer balls and three soccer shirts together cost \$262. What is the cost of one soccer ball?
 A) \$38 B) \$40 C) \$48 D) \$50 E) \$87.30
- (34) $0.3888 \dots =$
 A) $\frac{38}{99}$ B) $\frac{19}{45}$ C) $\frac{7}{18}$ D) $\frac{35}{99}$ E) $\frac{7}{12}$
- (35) Two identical regular hexagons are placed so that a side of each hexagon overlaps an opposite side of a square. If all sides of the polygons are the same length of 12-inches, what is the total perimeter of the new polygon.
 A) 144 in. B) 192 in. C) 200 in. D) 240 in. E) None of these
- (36) Albert chooses two different items for a snack. His choices are an apple, an orange, a banana, and a granola bar. How many different pairs of snacks could he choose?
 A) 3 B) 4 C) 5 D) 6 E) 7
- (37) To the right is a dart board. When you throw a dart, you earn either 5 points, 7 points, or 0 points (if you miss). Your score is the sum of all the points you earn. What is the highest total score less than 100 that is impossible to make?
 A) 11 D) 23
 B) 13 E) 34
 C) 18
- 
- (38) In eighth grade, the ratio of boys to girls was 5:4. After 3 more girls enrolled in the eighth grade, the ratio was 10:9. How many students are in the eighth grade now?
 A) 22 B) 57 C) 66 D) 93 E) 109
- (39) What is the mean of all the numbers between 1 and 100 that are evenly divisible by 6?
 A) 51 B) 60 C) 96 D) 102 E) 1632
- (40) If $a*b$ means $\frac{a+b}{2}$, then $(4*6)*2$ equals what number?
 A) 7 B) $3\frac{1}{2}$ C) 12 D) 6 E) $4\frac{1}{2}$
- (41) If $a + b = 19$ and $a - b = 5$, what is the value of $3a - 4b$?
 A) 7 B) -7 C) 8 D) -8 E) 12
- (42) What is the 30th triangular number?
 A) 300 B) 360 C) 419 D) 465 E) 499

- (43) A cube is created by folding the figure shown to the right. Which face is opposite the face with a 1 on it?



- A) 2
B) 3
C) 4
D) 5
E) 6

- (44) An *arithmetic sequence* is a sequence in which each term after the first is obtained by adding a constant to the previous term. For example, 2, 4, 6, 8 and 1, 4, 7, 10 are arithmetic sequences. In the grid shown to the right, the numbers in each row must form an arithmetic sequence and the numbers in each column must form an arithmetic sequence. What is the value of x ?

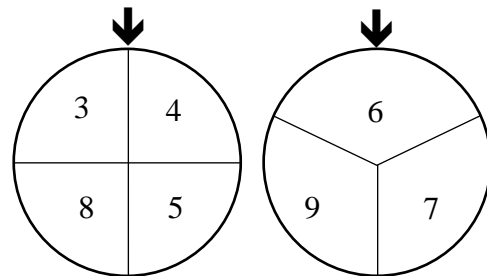
| | | | |
|----|--|----|-----|
| 1 | | | |
| 4 | | | 25 |
| 7 | | | x |
| 10 | | 36 | |

- A) 28
B) 36
C) 37
D) 43.75
E) 46

- (45) A brand of pasta costs \$1.80 for 12 ounces. At this rate, what is the price for 26 ounces of this brand of pasta?

- A) \$3.05
B) \$3.10
C) \$3.60
D) \$3.90
E) \$4.50

- (46) Every time the two wheels in the illustration to the right are spun, two numbers are selected by the pointers. What is the probability that the sum of the two numbers selected is a multiple of 3?

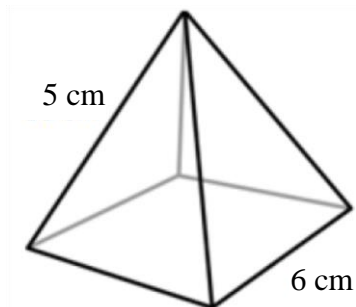


- A) $\frac{1}{4}$
B) $\frac{1}{2}$
C) $\frac{1}{6}$
D) $\frac{3}{7}$
E) None of these

- (47) Which of the following pairs of numbers has a greatest common factor of 20?

- A) 2000 and 200
B) 40 and 50
C) 20 and 25
D) 20 and 40
E) 40 and 80

- (48) The pyramid shown to the right is made up of four isosceles triangles with a square base. If the congruent sides of the triangles measure 5-cm and the base side is 6-cm long, what is the total surface area of this pyramid?



- A) 84 cm^2
B) 72 cm^2
C) 48 cm^2
D) 36 cm^2
E) 24 cm^2

- (49) Daniel begins with 64 coins in his coin jar. Each time he reaches into the jar, he removes half of the coins that are in the jar. How many times must he reach in and remove coins from his jar so that exactly 1 coin remains in the jar?
- A) 5 B) 6 C) 7 D) 32 E) 63
- (50) What is the x-intercept of the straight line $5y = 3x - 20$?
- A) $-\frac{1}{4}$ B) $\frac{3}{5}$ C) $\frac{20}{3}$ D) 0 E) -4

2021 – 2022 University Interscholastic League JH/MS Mathematics Contest A – Key

- (1) D
- (2) A
- (3) A
- (4) C
- (5) E (16π)
- (6) B
- (7) D
- (8) A
- (9) C
- (10) E
- (11) B
- (12) B
- (13) E
- (14) E
- (15) C
- (16) D
- (17) E
- (18) D
- (19) A
- (20) B
- (21) C
- (22) A
- (23) D
- (24) A
- (25) E

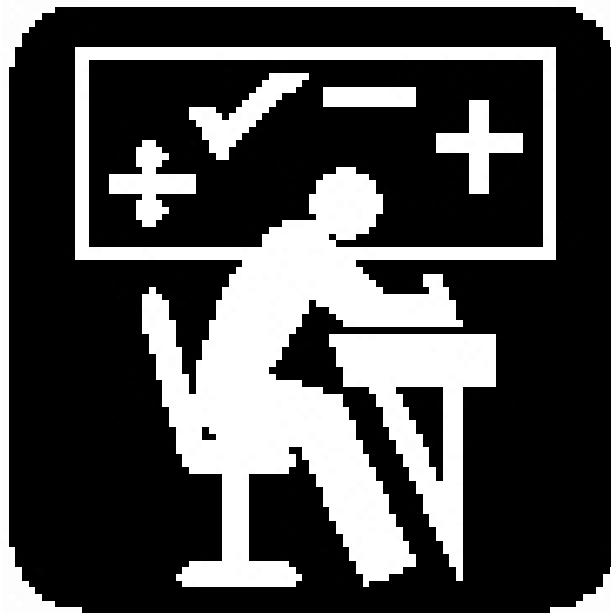
- (26) A
- (27) C
- (28) E
- (29) B
- (30) D
- (31) C
- (32) B
- (33) A
- (34) C
- (35) A
- (36) D
- (37) D
- (38) B
- (39) A
- (40) B
- (41) C
- (42) D
- (43) B
- (44) C
- (45) D
- (46) E ($\frac{1}{3}$)
- (47) D
- (48) A
- (49) B
- (50) C

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



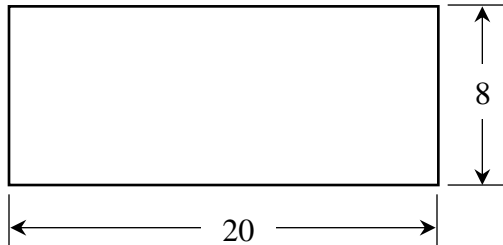
University Interscholastic League



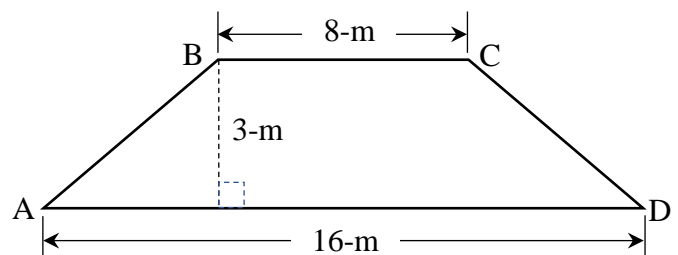
Mathematics

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2021 – 2022 University Interscholastic League JH/MS Mathematics Contest B

- (1) Evaluate: $(1 + 11 + 21 + 31 + 41) + (9 + 19 + 29 + 39 + 49)$.
A) 150 B) 199 C) 200 D) 249 E) 250
- (2) If the value of 20 quarters and 10 dimes equals the value of 10 quarters and n dimes, then n equals?
A) 10 B) 20 C) 30 D) 35 E) 45
- (3) When finding the sum: $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} + \frac{1}{7}$, what is the least common denominator used?
A) 110 B) 210 C) 420 D) 840 E) 5040
- (4) Given that 1 mile = 8 furlongs and 1 furlong = 40 rods, what is the number of feet in one rod?
A) 15 feet B) $16\frac{1}{2}$ feet C) 32 feet D) 64 feet E) 320 feet
- (5) What is the area of a square with a perimeter of 24-inches?
A) 576 in^2 B) 216 in^2 C) 96 in^2 D) 36 in^2 E) 16 in^2
- (6) How many minutes are between 7:30 AM and 3:20 PM of the same day?
A) 480 minutes B) 490 minutes C) 500 minutes D) 520 minutes E) None of these
- (7) If the sales tax for an item is $8\frac{1}{2}\%$, what is the sales tax for an item that costs \$50?
A) \$8.25 B) \$0.42 C) \$45.00 D) \$48.00 E) \$4.25
- (8) How many whole numbers will evenly divide into forty?
A) 9 B) 8 C) 12 D) 36 E) 18
- (9) 22 feet per second (ft/s) = _____ miles per hour (mph).
A) 15 mph B) $5\frac{2}{3}$ mph C) 30 mph D) 75 mph E) 60 mph
- (10) What is the ratio of perimeter to area of the figure to the right?
A) $\frac{2}{5}$ D) $\frac{7}{48}$
B) $\frac{4}{5}$ E) $\frac{7}{40}$
C) $\frac{7}{20}$
- 
- The diagram shows a rectangle with a horizontal length of 20 and a vertical width of 8. Dimension lines with arrows indicate these measurements.

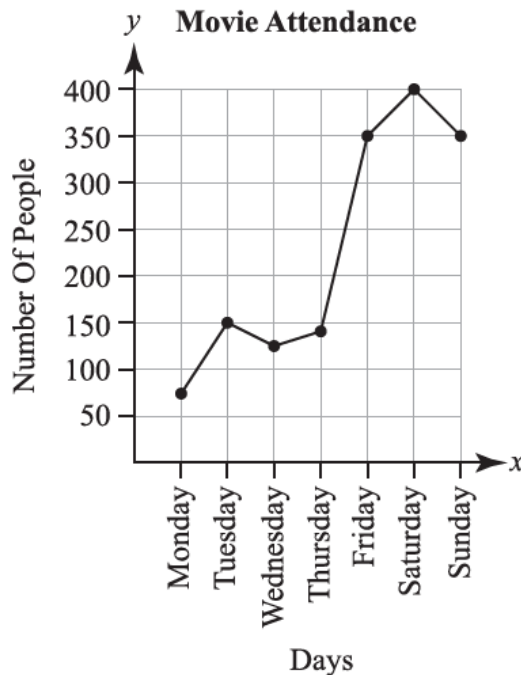
- (13) Genny has a square-shaped deck in her backyard with the dimensions $15 \text{ ft} \times 15 \text{ ft}$. She plans to enlarge the deck by adding the same amount to the length and the width of the current deck. If the length of the addition is a , which equation would provide the new area after the deck enlargement?
 A) $\text{Area} = (15a)^2$ B) $\text{Area} = 15^2 + a$ C) $\text{Area} = 15^2 + a^2$ D) $\text{Area} = (15 + a)^2$ E) $\text{Area} = 15a^2$
- (14) The Austin city manager wants to graph the city’s population growth across a period of 150 years. She will use a graph to illustrate changes in the rate of growth over time. Which graph would be **most** appropriate for that purpose?
 A) a line graph
 B) a circle graph
 C) a double bar graph
 D) a bimodal circle graph
 E) a relative frequency histogram
- (15) $8\frac{3}{4} \times 8\frac{1}{4} - \frac{3}{16} =$
 A) 64 B) $64\frac{3}{8}$ C) $64\frac{3}{16}$ D) 72 E) $72\frac{3}{16}$
- (16) In the sequence: $-1, 2, a, 14, 23, b, 47, \dots$, what does $2a^2 - b$ equal?
 A) -20 B) 64 C) -22 D) 36 E) 15
- (17) If $0.125 + \frac{1}{n} = \frac{3}{4}$, then $n =$
 A) $1\frac{3}{5}$ B) $\frac{5}{8}$ C) $\frac{7}{8}$ D) $1\frac{1}{7}$ E) $-\frac{5}{8}$
- (18) An exhaust fan is rated to be able to remove 125 ft^3 of air each minute. How long would it take this fan to remove the air in a room that measured 10 ft. by 8 ft. by 25 ft. in size?
 A) 8 minutes B) 16 minutes C) 20 minutes D) 30 minutes E) 36 minutes
- (19) Matt can do a certain job in 15 minutes that takes Andy 30 minutes to do. How long would it take both of them to do the one job working together?
 A) 6 minutes B) 8 minutes C) 10 minutes D) 12 minutes E) 45 minutes
- (20) What is the diameter of a sphere with a surface area of 64π square inches?
 A) 128 inches B) 64 inches C) 16 inches D) 8 inches E) 4 inches
- (21) One-half mile = _____ yards.
 A) 1760 yards B) 880 yards C) 440 yards D) 220 yards E) 110 yards
- (22) In trapezoid $ABCD$ to the right, the side AB and CD are equal. What is the perimeter of $ABCD$?



- A) 27 m
 B) 30 m
 C) 32 m
 D) 34 m
 E) 48 m

- (23) Which of the following illustrates the multiplicative identity property?
 A) $a(0) = 0$ B) $a\left(\frac{1}{a}\right) = 1$ C) $a + 1 = 1 + a$ D) $a(1) = a$ E) $a(1) = 1$
- (24) What is the average of the two largest prime numbers less than 60?
 A) 58 B) 57 C) 56 D) 55 E) 53

For problems #25 – #28 please use the graph below.

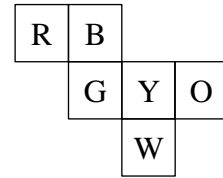


- (25) The graph above shows the number of customers at a local movie theater for one week. What was the percent increase in attendance from Monday to Tuesday?
 A) 100% B) 150% C) 175% D) 75% E) 15%
- (26) The graph above shows the number of customers at a local movie theater for one week. What was the range of attendance from Tuesday thru Saturday?
 A) 250 people B) 125 people C) 550 people D) 225 people E) 275 people
- (27) The graph above shows the number of customers at a local movie theater for one week. What was the mean attendance for the weekend (Friday – Sunday)? (Please round to the whole number if necessary.)
 A) 50 people B) 425 C) 375 people D) 367 people E) 1100 people
- (28) The graph above shows the number of customers at a local movie theater for one week. If tickets to a movie cost \$7.50 each, how much money was earned from ticket sales over the weekend (Saturday and Sunday)?
 A) \$6000 B) \$8250 C) \$5625 D) \$3000 E) \$2625
- (29) Dan wanted to buy a video game, but at \$56, it was too expensive. Later, the store put the game on sale, marking the price down by 25%. He also found a coupon in the paper that gave 10% off the sale price. Using the coupon, he bought the game. How much did he pay for the game (not including sales tax)?
 A) \$14.00 B) \$21.00 C) \$42.00 D) \$37.80 E) \$50.40

- (30) What is the largest radius of a circle that can be circumscribed by a square with area 324-in^2 ?
 A) 162-inches B) 81-inches C) 9-inches D) 18-inches E) 9π -inches
- (31) If $5^{(2x)} = 400$, then 5^x equals what number?
 A) 2000 B) 200 C) 125 D) 20 E) 16
- (32) In a group of 16 people the average age is 25. After Andy leaves the group, the mean age falls to 22. How old is Andy?
 A) 23 years B) 55 years C) 60 years D) 65 years E) 70 years
- (33) How many 6 in. by 6 in. tiles would Billy need to cover the recreation room floor which measures 9 ft. by 12 ft.?
 A) 36 B) 108 C) 360 D) 410 E) 432
- (34) $0.4666\dots =$
 A) $\frac{7}{15}$ B) $\frac{23}{45}$ C) $\frac{14}{33}$ D) $\frac{46}{99}$ E) $\frac{23}{99}$
- (35) A palindrome is a positive integer whose digits are the same when read forwards or backwards. What is the smallest number which can be added to 2002 to produce a larger palindrome?
 A) 11 B) 18 C) 108 D) 110 E) 1001
- (36) Liz is walking in a straight line towards a lamp post which is 8-m high. When she is 12-m away from the lamp post, her shadow is 4-m in length. When she is 8-m from the lamp post, what is the length of her shadow?
 A) $1\frac{1}{2}$ -m B) 2-m C) $2\frac{1}{2}$ -m D) $2\frac{2}{3}$ -m E) 3-m
- (37) A large box of chocolates and a small box of chocolates together cost \$15. If the large box costs \$3 more than the small box, what is the price of the small box of chocolates?
 A) \$3 B) \$4 C) \$5 D) \$6 E) \$9
- (38) There are 2 boys for every 3 girls in Mr. Zapata’s math class. If there are 30 students in his class, what percent of them are boys?
 A) 12% B) 20% C) 40% D) 60% E) $66\frac{2}{3}\%$
- (39) Mike, Dan, and Matt are having a race on their tricycles. If there are no ties, in how many different possible orders can they finish?
 A) 3 B) 4 C) 5 D) 6 E) 7
- (40) If $a*b$ is defined so that $a*b = a^2 + b$, what is $(3*2)*4$?
 A) 24 B) 25 C) 40 D) 123 E) 125
- (41) If $x = 5$ and $y = x + 3$ and $z = 3y + 1$, then what is the value of z ?
 A) 7 B) 12 C) 19 D) 25 E) 46

- (42) What is the sum of 8th and 9th triangular numbers?
 A) 81 B) 72 C) 45 D) 36 E) 17

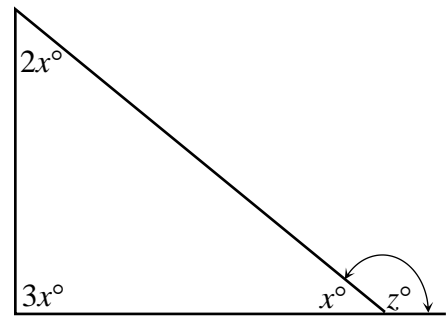
- (43) Six squares are colored, front and back, (R = red, B = blue, O = orange, Y = yellow, G = green, and W = white). They are hinged together as shown, then folded to form a cube. What is the face opposite the white face?



- A) R
 B) B
 C) O
 D) Y
 E) G

- (44) In the drawing to the right, what is the value of z ?

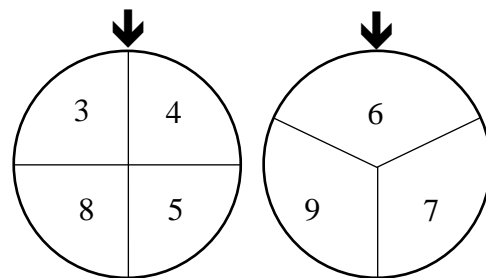
- A) 60
 B) 90
 C) 120
 D) 150
 E) 180



- (45) Larry the llama is tied to the corner of a 2-m by 3-m shed on a 3-m leash. How much area does Larry have in which to play if he can go only around the outside of the shed?

- A) $4\pi\text{-m}^2$ B) $5\pi\text{-m}^2$ C) $7\pi\text{-m}^2$ D) $9\pi\text{-m}^2$ E) $4\pi\text{-m}^2$

- (46) Every time the two wheels in the illustration to the right are spun, two numbers are selected by the pointers. What is the probability that the sum of the two numbers selected is a multiple of 2?



- A) $\frac{1}{4}$
 B) $\frac{1}{2}$
 C) $\frac{3}{7}$
 D) $\frac{2}{3}$
 E) $\frac{1}{6}$

- (47) Which of the following pairs of numbers has a greatest common factor of 12?

- A) 24 and 108 B) 16 and 24 C) 12 and 18 D) 36 and 40 E) 24 and 32

- (48) 44 (base 6) + 33 (base 6) + 22 (base 6) + 11 (base 6) = _____ (base 6)
A) 110 B) 221 C) 134 D) 154 E) 124
- (49) Ten balls numbered 1 to 10 are in a jar. Wes reaches into the jar and randomly removes one of the balls. Then Noah reaches into the jar and randomly removes a different ball. What is the probability that the sum of the two numbers on the balls removed is even?
A) $\frac{4}{9}$ B) $\frac{1}{5}$ C) $\frac{25}{52}$ D) $\frac{19}{40}$ E) $\frac{2}{5}$
- (50) What is the x-intercept of the straight line $6y = \frac{3}{4}x - 12$?
A) -2 B) 16 C) 9 D) -9 E) 2

2021 – 2022 University Interscholastic League JH/MS Mathematics Contest B – Key

- | | | | |
|------|-----------------|------|---|
| (1) | E | (26) | A |
| (2) | D | (27) | D |
| (3) | C | (28) | C |
| (4) | B | (29) | D |
| (5) | D | (30) | C |
| (6) | E (470 minutes) | (31) | E |
| (7) | E | (32) | E |
| (8) | B | (33) | E |
| (9) | A | (34) | A |
| (10) | C | (35) | D |
| (11) | C | (36) | D |
| (12) | C | (37) | D |
| (13) | D | (38) | C |
| (14) | A | (39) | D |
| (15) | D | (40) | E |
| (16) | B | (41) | D |
| (17) | A | (42) | A |
| (18) | B | (43) | B |
| (19) | C | (44) | D |
| (20) | D | (45) | C |
| (21) | B | (46) | B |
| (22) | D | (47) | A |
| (23) | D | (48) | D |
| (24) | C | (49) | A |
| (25) | B | (50) | B |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



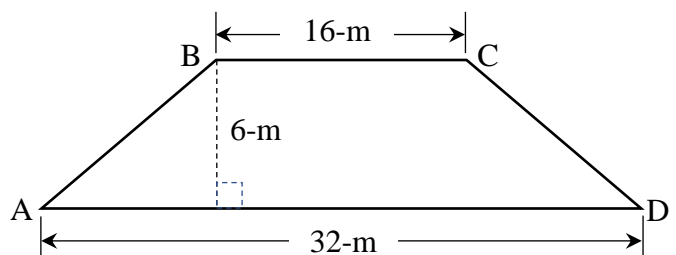
Mathematics

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2021 – 2022 University Interscholastic League JH/MS Mathematics Contest C

- (1) Evaluate: $(-10 + -9 + -8 + \dots + -1) + (1 + 3 + 5 + \dots + 11)$.
 A) -19 B) 91 C) -6 D) 66 E) -36
- (2) If the value of 12 quarters and 16 dimes equals the value of 10 quarters and n dimes, then n equals?
 A) 12 B) 21 C) 23 D) 34 E) 46
- (3) When finding the sum: $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} + \frac{1}{8}$, what is the least common denominator used?
 A) 110 B) 210 C) 120 D) 240 E) 5760
- (4) Given that 1 bushel = 4 pecks and 8 quarts = 1 peck, how many pints (dry measure) are in a bushel?
 A) 64 pints B) $16\frac{1}{2}$ pints C) 128 pints D) 32 pints E) 80 pints
- (5) What is the area of a square with a perimeter of 32-inches?
 A) 1024in^2 B) 512in^2 C) 256in^2 D) 128in^2 E) 64in^2
- (6) How many minutes are between high noon and 3:30 PM of the same day?
 A) 330 minutes B) 165 minutes C) 183 minutes D) 210 minutes E) None of these
- (7) If the sales tax for an item is $8\frac{1}{2}\%$, what is the sales tax for an item that costs \$20?
 A) \$1.70 B) \$0.70 C) \$10.85 D) \$21.70 E) \$17.00
- (8) How many whole numbers will evenly divide into 70?
 A) 3 B) 6 C) 8 D) 35 E) 70
- (9) 44 feet per second (ft/s) = _____ miles per hour (mph).
 A) 30 mph B) $1\frac{4}{11}$ mph C) 88 mph D) 44 mph E) $6\frac{4}{11}$ mph
- (10) What is the ratio of perimeter to area of the figure to the right?
 A) $\frac{2}{5}$ D) $\frac{7}{60}$
 B) $\frac{4}{5}$ E) $\frac{7}{30}$
 C) $\frac{7}{20}$
-
- (11) If the product of two consecutive whole numbers is 240, what is the larger whole number?
 A) 15 B) 16 C) 17 D) 18 E) 19
- (12) At a wedding reception, after the bride and groom cut their wedding cake half the people in the room left. One third of those remaining started to dance. There were then 30 people who were not dancing. What was the original number of people in the room after the cake-cutting ceremony?
 A) 24 B) 30 C) 90 D) 42 E) 45

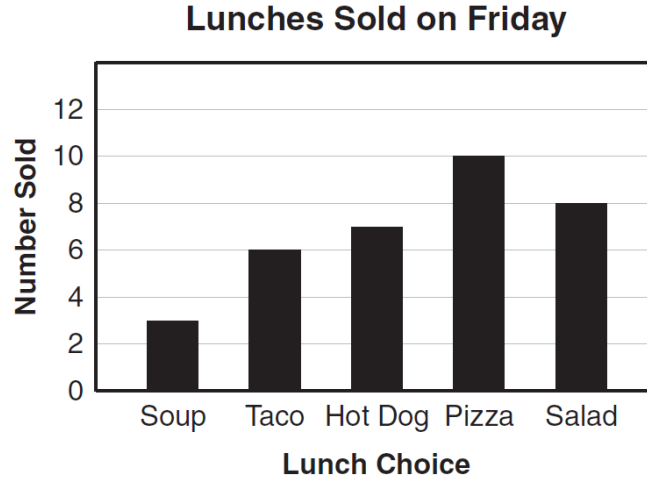
- (13) Genny has a square-shaped homemade rug in her bedroom with the dimensions 5 ft \times 5 ft. She plans to enlarge the rug by adding the same amount to the length and the width of the current rug. If the length of the addition is a , which equation would provide the new area after the rug enlargement?
 A) Area = $(5 + a)^2$ B) Area = $5^2 + a$ C) Area = $5^2 + a^2$ D) Area = $(5a)^2$ E) Area = $5a^2$
- (14) The Austin city manager wants to graph the populations for the city’s three major ethnic groups for the current year. She will use the graph to illustrate the diversity of Austin’s population. Which graph would be **most** appropriate for that purpose?
 A) a line graph
 B) a circle graph
 C) a double bar graph
 D) a bimodal circle graph
 E) a relative frequency histogram
- (15) $6\frac{3}{4} \times 6\frac{1}{4} - \frac{3}{16} =$
 A) $42\frac{3}{16}$ B) $36\frac{3}{8}$ C) 42 D) $36\frac{3}{16}$ E) $42\frac{3}{16}$
- (16) In the sequence: -1, 2, a , 14, 23, b , 47, . . . , what does $a^2 - 2b$ equal?
 A) 49 B) 64 C) -68 D) -19 E) 27
- (17) If $0.375 + \frac{1}{n} = \frac{3}{4}$, then $n =$
 A) $1\frac{3}{8}$ B) $\frac{3}{8}$ C) $2\frac{2}{3}$ D) $1\frac{1}{3}$ E) $-\frac{3}{8}$
- (18) An exhaust fan is rated to be able to remove 150 ft³ of air each minute. How long would it take this fan to remove the air in a room that measured 10 ft. by 9 ft. by 25 ft. in size?
 A) 8 minutes B) 16 minutes C) 20 minutes D) 30 minutes E) None of these
- (19) Matt can do a certain job in 4 minutes that takes Andy 12 minutes to do. How long would it take both of them to do the one job working together?
 A) 3 minutes B) 4 minutes C) 6 minutes D) 8 minutes E) 16 minutes
- (20) What is the diameter of a sphere with a surface area of 36π square inches?
 A) 4 inches B) 3 inches C) 6 inches D) 8 inches E) 2 inches
- (21) Three-fourths mile = _____ yards.
 A) 1760 yards B) 1320 yards C) 880 yards D) 440 yards E) 220 yards
- (22) In trapezoid $ABCD$ to the right, the side AB and CD are equal. What is the perimeter of $ABCD$?



- A) 42 m
 B) 48 m
 C) 52 m
 D) 58 m
 E) 68 m

- (23) Which of the following illustrates the additive identity property?
 A) $a + (0) = a$ B) $a\left(\frac{1}{a}\right) = 1$ C) $a + 1 = 1 + a$ D) $a(0) = 0$ E) $a + (1) = a$
- (24) What is the average of the two largest prime numbers less than 70?
 A) 68 B) 64 C) 66 D) 65 E) 63

For problems #25 – #28 please use the graph below.

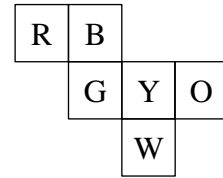


- (25) The bar graph above shows the number of different lunches sold at Thurgood Marshall Middle School on a Friday. The number of pizza lunches sold was the same as the number of which two lunch choices added together?
 A) soup & hot dog B) soup & salad C) taco & hot dog D) taco & salad E) taco & soup
- (26) The bar graph above shows the number of different lunches sold at Thurgood Marshall Middle School on a Friday. How many more hot dogs and salads were sold than tacos and soups?
 A) 24 more B) 15 more C) 12 more D) 6 more E) 5 more
- (27) The bar graph above shows the number of different lunches sold at Thurgood Marshall Middle School on a Friday. If a salad cost 75¢, a bowl of soup cost 85¢ and pizza cost \$1.25, how much does it cost in all to purchase these three items?
 A) \$1.95 B) \$2.75 C) \$2.85 D) \$2.95 E) \$3.05
- (28) The bar graph above shows the number of different lunches sold at Thurgood Marshall Middle School on a Friday. It turns out that every student that ate lunch that Friday, each picked two items from the lunch choices and 8 additional students brought their own lunch. How many students total ate lunch that Friday?
 A) 34 students B) 28 students C) 26 students D) 25 students E) 17 students.
- (29) Dan wanted to buy a video game, but at \$64, it was too expensive. Later, that store put the game on sale, marking the price down by 25%. He also found a coupon in the paper that gave 10% off the sale price. Using the coupon, he bought the game. How much did he pay for the game (not including sales tax).
 A) \$16.00 B) \$17.60 C) \$24.00 D) \$48.00 E) \$43.20

- (30) What is the largest radius of a circle that can be circumscribed by a square with area 484-in^2 ?
 A) 242-inches B) 22-inches C) 11-inches D) 44-inches E) 22π -inches
- (31) If $5^{(2x)} = 625$, then 5^x equals what number?
 A) 25 B) 200 C) 125 D) 80 E) 20
- (32) In a group of 16 people the average age is 25. After Mary leaves the group, the mean age falls to 23. How old is Mary?
 A) 23 years B) 55 years C) 60 years D) 65 years E) 70 years
- (33) How many 6 in. by 6 in. tiles would Billy need to cover the recreation room floor which measures 6 ft. by 9 ft.?
 A) 216 B) 108 C) 96 D) 54 E) 48
- (34) $0.7333 \dots =$
 A) $\frac{7}{15}$ B) $\frac{73}{90}$ C) $\frac{11}{15}$ D) $\frac{73}{99}$ E) $\frac{7}{60}$
- (35) A palindrome is a positive integer whose digits are the same when read forwards or backwards. What is the smallest number which can be added to 202 to produce a larger palindrome?
 A) 0 B) 1 C) 2 D) 3 E) 4
- (36) Liz is walking in a straight line towards a lamp post which is 8-m high. When she is 12-m away from the lamp post, her shadow is 4-m in length. When she is 10-m from the lamp post, what is the length of her shadow?
 A) $2\frac{1}{2}$ -m B) $3\frac{1}{3}$ -m C) $3\frac{1}{2}$ -m D) $2\frac{2}{3}$ -m E) 3-m
- (37) A large box of chocolates and a small box of chocolates together cost \$15. If the large box costs \$3 more than the small box, what is the price of the large box of chocolates?
 A) \$3 B) \$4 C) \$5 D) \$6 E) \$9
- (38) There are 2 boys for every 3 girls in Mr. Zapata's math class. If there are 30 students in his class, what percent of them are girls?
 A) 12% B) 20% C) 40% D) 60% E) $66\frac{2}{3}\%$
- (39) Mike, Dan, Todd, and Matt are having a race on their tricycles. If there are no ties, in how many different possible orders can they finish?
 A) 4 B) 8 C) 16 D) 20 E) 24
- (40) If $a*b$ is defined so that $a*b = a^2 + b$, what is $(2*3)*4$?
 A) 7 B) 53 C) 11 D) 28 E) 24
- (41) If $x = 5$ and $y = x - 3$ and $z = 3y + 1$, then what is the value of z ?
 A) 7 B) 12 C) 19 D) 25 E) 42

- (42) What is the sum of 7th and 8th triangular numbers?
 A) 56 B) 60 C) 64 D) 72 E) 128

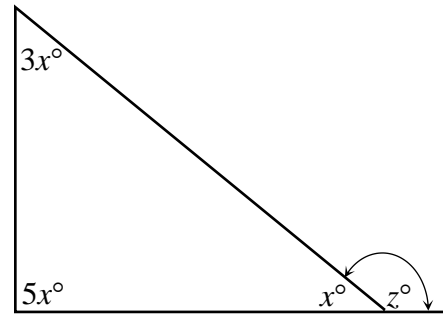
- (43) Six squares are colored, front and back, (R = red, B = blue, O = orange, Y = yellow, G = green, and W = white). They are hinged together as shown, then folded to form a cube. What is the face opposite the red face?



- A) R
 B) B
 C) O
 D) Y
 E) G

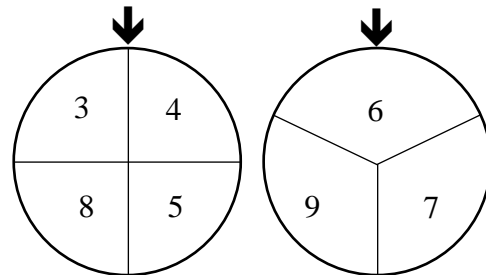
- (44) In the drawing to the right, what is the value of z ?

- A) 30
 B) 160
 C) 20
 D) 140
 E) 150



- (45) Larry the llama is tied to the corner of a 4-m by 3-m shed on a 4-m leash. How much area does Larry have in which to play if he can go only around the outside of the shed?
 A) $13\pi\text{-m}^2$ B) $\frac{7}{4}\pi\text{-m}^2$ C) $17\pi\text{-m}^2$ D) $12\frac{1}{4}\pi\text{-m}^2$ E) $7\frac{3}{4}\pi\text{-m}^2$

- (46) Every time the two wheels in the illustration to the right are spun, two numbers are selected by the pointers. What is the probability that the sum of the two numbers selected is a prime number?



- A) $\frac{1}{3}$
 B) $\frac{1}{2}$
 C) $\frac{4}{7}$
 D) $\frac{2}{3}$
 E) $\frac{1}{4}$

- (47) Which of the following pairs of numbers has a greatest common factor of 8?
 A) 18 and 24 B) 16 and 36 C) 32 and 18 D) 42 and 40 E) 24 and 32

(48) 44 (base 5) + 33 (base 5) + 22 (base 5) + 11 (base 5) = _____ (base 5)
A) 110 B) 220 C) 130 D) 230 E) 120

(49) Six balls numbered 1 to 6 are in a jar. Wes reaches into the jar and randomly removes one of the balls. Then Noah reaches into the jar and randomly removes a different ball. What is the probability that the sum of the two numbers on the balls removed is even?
A) $\frac{1}{3}$ B) $\frac{1}{5}$ C) $\frac{1}{6}$ D) $\frac{7}{36}$ E) $\frac{2}{5}$

(50) What is the x-intercept of the straight line $8y = \frac{3}{4}x - 24$?
A) -3 B) 18 C) 32 D) -6 E) 3

2021 – 2022 University Interscholastic League JH/MS Mathematics Contest C – Key

- | | | | |
|------|----------------|------|---|
| (1) | A | (26) | D |
| (2) | B | (27) | C |
| (3) | C | (28) | D |
| (4) | A | (29) | E |
| (5) | E | (30) | C |
| (6) | D | (31) | A |
| (7) | A | (32) | B |
| (8) | C | (33) | A |
| (9) | A | (34) | C |
| (10) | E | (35) | B |
| (11) | B | (36) | B |
| (12) | E | (37) | E |
| (13) | A | (38) | D |
| (14) | B | (39) | E |
| (15) | C | (40) | B |
| (16) | D | (41) | A |
| (17) | C | (42) | C |
| (18) | E (15 minutes) | (43) | D |
| (19) | A | (44) | B |
| (20) | C | (45) | D |
| (21) | B | (46) | A |
| (22) | E | (47) | E |
| (23) | A | (48) | B |
| (24) | B | (49) | E |
| (25) | A | (50) | C |

**University Interscholastic League
2021 – 2022 Elementary Number Sense Test A**

Contestant's Number _____

| | | |
|-----------------|-----------------|--|
| Final | | |
| 2 nd | | |
| 1 st | | |
| Score | Initials | |

**Read Directions Carefully
Before Beginning Test**

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The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(1) $22 - 19 =$ _____</p> <p>(2) $7 \times 12 =$ _____</p> <p>(3) $220 \div 4 =$ _____</p> <p>(4) $2021 + 2022 =$ _____</p> <p>(5) $12 \times 5 \times 10 =$ _____</p> <p>(6) $132 \times 5 =$ _____</p> <p>(7) $143 \div 11 =$ _____</p> <p>(8) $73 - 28 - 25 =$ _____</p> <p>(9) $24 \times 25 =$ _____</p> <p>*(10) $201 \times 2021 =$ _____</p> <p>(11) 414599.6206 rounded to the thousands place is _____</p> <p>(12) $22 \times 18 =$ _____</p> <p>(13) Which digit is in the hundred-thousandths place in 21340.65789? _____</p> <p>(14) $24 \times 12 =$ _____</p> <p>(15) What is the remainder for $2918 \div 9$? _____</p> <p>(16) There are _____ whole numbers between 6 and 26.</p> <p>(17) $2 \times 10^4 + 6 \times 10^1 + 8 \times 10^{-1} =$ _____ (decimal)</p> <p>(18) $8 \times 15 - 15 \times 2 =$ _____</p> <p>(19) MMXXI = _____ (Arabic Numeral)</p> | <p>*(20) $2022 \times 21 - 2022 =$ _____</p> <p>(21) $14 + 16 + 18 + 20 =$ _____</p> <p>(22) $18 \div 2 \times 3 =$ _____</p> <p>(23) $4\frac{1}{7}$ weeks = _____ days</p> <p>(24) $5\frac{3}{4}\%$ = _____ decimal</p> <p>(25) $\frac{13}{24} + \frac{5}{24} =$ _____</p> <p>(26) $92 \times 93 =$ _____</p> <p>(27) 0.96 = _____ common fraction</p> <p>(28) If 48 ♣ costs 64¢ then 36 ♣ cost _____ ¢</p> <p>(29) $79 \times 11 =$ _____</p> <p>*(30) $667 \times 239 =$ _____</p> <p>(31) 17 quarters = _____ nickels</p> <p>(32) The sum of the two largest primes less than 10 is _____</p> <p>(33) \$3.20 minus 3 quarters = \$ _____</p> <p>(34) $\frac{9}{100} \div \frac{27}{100} =$ _____</p> <p>(35) 72 inches = _____ feet</p> <p>(36) The LCM of 12 and 9 is _____</p> <p>(37) $48 \times 101 =$ _____</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- (38) $87\frac{1}{2}\%$ = _____ common fraction
- (39) The ratio of ounces in 1 pint to 1 quart is _____
- *(40) $44\frac{4}{9}\%$ \times 6299 = _____
- (41) 16^2 = _____
- (42) 4^3 = _____
- (43) The volume of a cube with side 4-cm is _____ cm^3
- (44) The perimeter of a rectangle with sides 11-m and 19-m is _____ m
- (45) If $15 + x = 36$, then $x =$ _____
- (46) $\frac{9}{10} \div \frac{3}{5} =$ _____
- (47) $6\frac{1}{3} \times 6\frac{2}{3} =$ _____ (mixed number)
- (48) $37 \times 33 =$ _____
- (49) If $x = 15$, then $3x - 20 =$ _____
- *(50) $13 \times 15 \times 17 =$ _____
- (51) What is the number, k , in the sequence:
1, 1, 2, 3, k , 8, 13, ...? _____
- (52) If the area of a circle is 144π , what is the diameter of the circle? _____
- (53) What is the area of a right triangle with hypotenuse 5 in. and leg 4 in.? _____ in^2
- (54) $125 \times 16 =$ _____
- (55) What whole number squared minus eight equals twenty-eight? _____
- (56) A triangle has sides of 10-in, 12-in and 14-in. What is its semi-perimeter? _____ in
- (57) How many elements are in the intersection of the sets $\{1, 2, 3, \dots, 10\}$ and $\{2, 4, 6, \dots, 20\}$? _____
- (58) How many elements are in the power set of $\{T, H, R, E, E\}$? _____
- (59) What is the perimeter of the rhombus with a side length of $16\frac{1}{4}$? _____
- *(60) 2991 weeks = _____ days
- (61) 27 (base 10) = _____ (base 9)
- (62) $-2^4 \div 4 =$ _____
- (63) 10 square feet = _____ sq.in.
- (64) $32^2 =$ _____
- (65) Two fair dice are thrown. What is the probability that the sum of the two sides showing is 5? _____
- (66) 15 quarters plus 18 nickels plus 9 dimes plus 15 cents = \$ _____
- (67) The volume of a rectangular box that measures 10-m by 8-m by 12-m is _____ m^3
- (68) If $x + 12 < 8$, then $x <$ _____
- (69) $\frac{7}{9} + \frac{9}{7} =$ _____ (mixed number)
- *(70) $1111 \times 809 + 1 =$ _____
- (71) 390 seconds = _____ minutes
- (72) For a rectangle with sides 4-cm and 8-cm, what is the ratio of its perimeter to its area? _____
- (73) If 9% of x is 4.5% of 6, then $x =$ _____
- (74) $(-18) + (-24) \div (-2) =$ _____
- (75) $36^2 + 12^2 =$ _____
- (76) $28^2 - 18^2 =$ _____
- (77) What is the distance between -12 and 12 on the number line? _____
- (78) $143 \times 28 =$ _____
- (79) The area of a square with diagonal 8 is _____
- *(80) $\sqrt{81796} =$ _____

2021 – 2022 University Interscholastic League Elementary Number Sense Test A – Key

| | | | |
|-----------------------|-------------------------|---------------------------------------|----------------------------------------|
| (1) 3 | *(20) 38418 – 42462 | (38) $\frac{7}{8}$ | (59) 65 |
| (2) 84 | (21) 68 | (39) $\frac{1}{2}; .5$ | *(60) 19891 – 21983 |
| (3) 55 | (22) 27 | *(40) 2660 – 2939 | (61) 30 |
| (4) 4043 | (23) 29 | (41) 256 | (62) -4 |
| (5) 600 | (24) .0575 | (42) 64 | (63) 1440 |
| (6) 660 | (25) $\frac{3}{4}; .75$ | (43) 64 | (64) 1024 |
| (7) 13 | (26) 8556 | (44) 60 | (65) $\frac{1}{9}$ |
| (8) 20 | (27) $\frac{24}{25}$ | (45) 21 | (66) 5.70 |
| (9) 600 | (28) 48 | (46) $\frac{3}{2}; 1\frac{1}{2}; 1.5$ | (67) 960 |
| *(10) 385910 – 426532 | (29) 869 | (47) $42\frac{2}{9}$ | (68) -4 |
| (11) 415000 | *(30) 151443 – 167383 | (48) 1221 | (69) $2\frac{4}{63}$ |
| (12) 396 | (31) 85 | (49) 25 | *(70) 853860 – 943740 |
| (13) 9 | (32) 12 | *(50) 3150 – 3480 | (71) $6.5; 6\frac{1}{2}; \frac{13}{2}$ |
| (14) 288 | (33) 2.45 | (51) 5 | (72) $\frac{3}{4}; .75$ |
| (15) 2 | (34) $\frac{1}{3}$ | (52) 24 | (73) 3 |
| (16) 19 | (35) 6 | (53) 6 | (74) -6 |
| (17) 20060.8 | (36) 36 | (54) 2000 | (75) 1440 |
| (18) 90 | (37) 4848 | (55) 6 | (76) 460 |
| (19) 2021 | | (56) 18 | (77) 24 |
| | | (57) 5 | (78) 4004 |
| | | (58) 32 | (79) 32 |
| | | | *(80) 272 – 300 |

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\frac{2}{3}$ it cannot be written as .666... or $\overline{.6}$.

**University Interscholastic League
2021 – 2022 Elementary Number Sense Test B**

Contestant's Number _____

| | | |
|-----------------|-----------------|--|
| Final | | |
| 2 nd | | |
| 1 st | | |
| Score | Initials | |

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- | | |
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| <p>(1) $221 + 19 =$ _____</p> <p>(2) $12 \times 9 =$ _____</p> <p>(3) $2200 \div 5 =$ _____</p> <p>(4) $2021 - 1951 =$ _____</p> <p>(5) $8 \times 10 \times 7 =$ _____</p> <p>(6) $337 \times 6 =$ _____</p> <p>(7) $165 \div 11 =$ _____</p> <p>(8) $49 - 8 - 22 =$ _____</p> <p>(9) $32 \times 25 =$ _____</p> <p>*(10) $301 \times 2022 =$ _____</p> <p>(11) 414599.6206 rounded to the tens place is _____</p> <p>(12) $37 \times 43 =$ _____</p> <p>(13) Which digit is in the thousands place in 21340.65789? _____</p> <p>(14) $12 \times 17 =$ _____</p> <p>(15) What is the remainder for $4518 \div 9$? _____</p> <p>(16) There are _____ whole numbers between 30 and 7.</p> <p>(17) $3 \times 10^3 + 2 \times 10^2 + 1 \times 10^{-1} =$ _____ (decimal)</p> <p>(18) $11 \times 7 - 11 \times 5 =$ _____</p> <p>(19) MMXXII = _____ (Arabic Numeral)</p> | <p>*(20) $4680 \times 29 + 4679 =$ _____</p> <p>(21) $18 + 23 + 28 + 33 =$ _____</p> <p>(22) $24 \div 4 \times 8 =$ _____</p> <p>(23) $4\frac{1}{2}$ days = _____ hours</p> <p>(24) $3\frac{3}{8}\%$ = _____ decimal</p> <p>(25) $\frac{5}{16} + \frac{3}{16} =$ _____</p> <p>(26) $99 \times 95 =$ _____</p> <p>(27) 0.82 = _____ common fraction</p> <p>(28) If 60 ♣ costs 80¢ then 45 ♣ cost _____ ¢</p> <p>(29) $11 \times 85 =$ _____</p> <p>*(30) $329 \times 667 =$ _____</p> <p>(31) 56 quarters = _____ nickels</p> <p>(32) The sum of the two largest primes less than 30 is _____</p> <p>(33) \$7.31 minus 5 quarters = \$ _____</p> <p>(34) $\frac{21}{100} \div \frac{27}{100} =$ _____</p> <p>(35) 108 inches = _____ yards</p> <p>(36) The LCM of 18 and 12 is _____</p> <p>(37) $101 \times 89 =$ _____</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- (38) $12\frac{1}{2}\%$ = _____ common fraction
- (39) The ratio of ounces in 1 cup to 1 quart is _____
- *(40) $77\frac{7}{9}\%$ \times 1798 = _____
- (41) 24^2 = _____
- (42) 6^3 = _____
- (43) The volume of a cube with side 3-cm is _____ cm^3
- (44) The perimeter of a rectangle with sides 23-m and 37-m is _____ m
- (45) If $49 + x = 211$, then $x =$ _____
- (46) $\frac{7}{12} \div \frac{14}{15} =$ _____
- (47) $12\frac{4}{5} \times 12\frac{1}{5} =$ _____ (mixed number)
- (48) $69 \times 49 =$ _____
- (49) If $x = 22$, then $3x - 22 =$ _____
- *(50) $39 \times 40 \times 41 =$ _____
- (51) What is the number, k , in the sequence:
2, 5, 10, 17, k , 37, 50, . . .? _____
- (52) If the area of a circle is 256π , what is the diameter of the circle? _____
- (53) What is the area of a right triangle with hypotenuse 13 in. and leg 5 in.? _____ in^2
- (54) $24 \times 125 =$ _____
- (55) What whole number squared plus sixteen equals forty-one? _____
- (56) A triangle has sides of 8-in, 12-in and 12-in. What is its semi-perimeter? _____ in
- (57) How many elements are in the intersection of the sets $\{1, 2, 3, \dots, 12\}$ and $\{1, 3, 5, \dots, 21\}$? _____
- (58) How many elements are in the power set of $\{T, E, N\}$? _____
- (59) What is the perimeter of a regular hexagon with a side length of $6\frac{5}{6}$? _____
- *(60) 2021 years = _____ months
- (61) 21 (base 10) = _____ (base 3)
- (62) $-4^3 \div 8 =$ _____
- (63) 11 square feet = _____ sq.in.
- (64) $81^2 =$ _____
- (65) Two fair dice are thrown. What is the probability that the sum of the two sides showing is 11? _____
- (66) 9 quarters plus 8 nickels plus 19 dimes plus 24 cents = \$ _____
- (67) The volume of a rectangular box that measures 11-m by 5-m by 12-m is _____ m^3
- (68) If $x + 24 > 8$, then $x >$ _____
- (69) $\frac{5}{8} + \frac{8}{5} =$ _____ (mixed number)
- *(70) $271 \times 1111 + 9 =$ _____
- (71) 450 seconds = _____ minutes
- (72) For a rectangle with sides 6-cm and 10-cm, what is the ratio of its perimeter to its area? _____
- (73) If 6% of x is 18% of 6, then $x =$ _____
- (74) $(-12) + (-36) \div (-3) =$ _____
- (75) $33^2 + 11^2 =$ _____
- (76) $34^2 - 22^2 =$ _____
- (77) What is the distance between -8 and 18 on the number line? _____
- (78) $49 \times 143 =$ _____
- (79) The area of a square with diagonal 12 is _____
- *(80) $\sqrt{378225} =$ _____

2021 – 2022 University Interscholastic League Elementary Number Sense Test B – Key

| | | | |
|-----------------------|-------------------------|---------------------------|----------------------------------------|
| (1) 240 | *(20) 133380 – 147418 | (38) $\frac{1}{8}$ | (59) 41 |
| (2) 108 | (21) 102 | (39) $\frac{1}{4}$; .25 | *(60) 23040 – 25464 |
| (3) 440 | (22) 48 | *(40) 1329 – 1468 | (61) 210 |
| (4) 70 | (23) 108 | (41) 576 | (62) -8 |
| (5) 560 | (24) .03375 | (42) 216 | (63) 1584 |
| (6) 2022 | (25) $\frac{1}{2}$; .5 | (43) 27 | (64) 6561 |
| (7) 15 | (26) 9405 | (44) 120 | (65) $\frac{1}{18}$ |
| (8) 19 | (27) $\frac{41}{50}$ | (45) 162 | (66) 4.79 |
| (9) 800 | (28) 60 | (46) $\frac{5}{8}$; .625 | (67) 660 |
| *(10) 578191 – 639053 | (29) 935 | (47) $156\frac{4}{25}$ | (68) -16 |
| (11) 414600 | *(30) 208471 – 230415 | (48) 3381 | (69) $2\frac{9}{40}$ |
| (12) 1591 | (31) 280 | (49) 44 | *(70) 286036 – 316144 |
| (13) 1 | (32) 52 | *(50) 60762 – 67158 | (71) $7.5; 7\frac{1}{2}; \frac{15}{2}$ |
| (14) 204 | (33) 6.06 | (51) 26 | (72) $\frac{8}{15}$ |
| (15) 0 | (34) $\frac{7}{9}$ | (52) 32 | (73) 18 |
| (16) 22 | (35) 3 | (53) 30 | (74) 0 |
| (17) 3200.1 | (36) 36 | (54) 3000 | (75) 1210 |
| (18) 22 | (37) 8989 | (55) 5 | (76) 672 |
| (19) 2022 | | (56) 16 | (77) 26 |
| | | (57) 6 | (78) 7007 |
| | | (58) 8 | (79) 72 |
| | | | *(80) 585 – 645 |

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\frac{2}{3}$ it cannot be written as .666... or $\overline{.6}$.

**University Interscholastic League
2021 – 2022 Elementary Number Sense Test C**

Contestant's Number _____

| | | |
|-----------------|-----------------|--|
| Final | | |
| 2 nd | | |
| 1 st | | |
| Score | Initials | |

**Read Directions Carefully
Before Beginning Test**

**Do Not Unfold This Sheet
Until Told to Begin**

Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. **ALL PROBLEMS ARE TO BE SOLVED MENTALLY.** Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(1) $222 + 19 =$ _____</p> <p>(2) $12 \times 8 =$ _____</p> <p>(3) $2020 \div 5 =$ _____</p> <p>(4) $2022 - 1981 =$ _____</p> <p>(5) $7 \times 10 \times 6 =$ _____</p> <p>(6) $6 \times 336 =$ _____</p> <p>(7) $154 \div 11 =$ _____</p> <p>(8) $53 - 7 - 13 =$ _____</p> <p>(9) $16 \times 25 =$ _____</p> <p>*(10) $2021 \times 399 =$ _____</p> <p>(11) 414599.6206 rounded to the hundreds place is _____</p> <p>(12) $52 \times 48 =$ _____</p> <p>(13) Which digit is in the ten-thousandths place in 21340.65789? _____</p> <p>(14) $22 \times 12 =$ _____</p> <p>(15) What is the remainder for $3672 \div 9$? _____</p> <p>(16) There are _____ whole numbers between 11 and 3.</p> <p>(17) $5 \times 10^3 + 6 \times 10^1 + 1 \times 10^{-1} =$ _____ (decimal)</p> <p>(18) $11 \times 23 - 11 \times 15 =$ _____</p> <p>(19) MMXIX = _____ (Arabic Numeral)</p> | <p>*(20) $8218 \times 29 + 8220 =$ _____</p> <p>(21) $16 + 21 + 26 + 31 =$ _____</p> <p>(22) $36 \div 6 \times 2 =$ _____</p> <p>(23) $5 \frac{1}{2}$ days = _____ hours</p> <p>(24) $5 \frac{3}{8} \% =$ _____ decimal</p> <p>(25) $\frac{7}{16} + \frac{3}{16} =$ _____</p> <p>(26) $98 \times 97 =$ _____</p> <p>(27) $0.62 =$ _____ common fraction</p> <p>(28) If 60 ♣ costs 80¢ then 15 ♣ cost _____ ¢</p> <p>(29) $11 \times 47 =$ _____</p> <p>*(30) $269 \times 667 =$ _____</p> <p>(31) 53 quarters = _____ nickels</p> <p>(32) The sum of the two largest primes less than 25 is _____</p> <p>(33) \$7.31 minus 6 quarters = \$ _____</p> <p>(34) $\frac{21}{100} \div \frac{33}{100} =$ _____</p> <p>(35) 108 inches = _____ feet</p> <p>(36) The LCM of 24 and 16 is _____</p> <p>(37) $101 \times 69 =$ _____</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- (38) $62\frac{1}{2}\%$ = _____ common fraction
- (39) The ratio of ounces in 1 cup to 1 pint is _____
- *(40) $77\frac{7}{9}\%$ \times 3601 = _____
- (41) 19^2 = _____
- (42) 5^3 = _____
- (43) The volume of a cube with side 2-cm is _____ cm^3
- (44) The perimeter of a rectangle with sides 14-m and 36-m is _____ m
- (45) If $57 + x = 214$, then $x =$ _____
- (46) $\frac{7}{9} \div \frac{14}{15} =$ _____
- (47) $11\frac{4}{5} \times 11\frac{1}{5} =$ _____ (mixed number)
- (48) $78 \times 38 =$ _____
- (49) If $x = 19$, then $3x - 19 =$ _____
- *(50) $29 \times 30 \times 31 =$ _____
- (51) What is the number, k , in the sequence:
0, 3, 8, 15, k , 35, 48, . . . ? _____
- (52) If the area of a circle is 169π , what is the diameter of the circle? _____
- (53) What is the area of a right triangle with hypotenuse 13 in. and leg 12 in.? _____ in^2
- (54) $32 \times 125 =$ _____
- (55) What whole number squared plus nineteen equals one hundred? _____
- (56) A triangle has sides of 24-in, 18-in and 18-in. What is its semi-perimeter? _____ in
- (57) How many elements are in the intersection of the sets $\{1, 2, 3, \dots, 15\}$ and $\{1, 3, 5, \dots, 21\}$? _____
- (58) How many elements are in the power set of $\{F, I, V, E\}$? _____
- (59) What is the perimeter of a regular hexagon with a side length of $7\frac{5}{6}$? _____
- *(60) 2022 years = _____ months
- (61) 24 (base 10) = _____ (base 3)
- (62) $-4^2 \div 8 =$ _____
- (63) 12 square feet = _____ sq.in.
- (64) $73^2 =$ _____
- (65) Two fair dice are thrown. What is the probability that the sum of the two sides showing is 7? _____
- (66) 8 quarters plus 8 nickels plus 11 dimes plus 15 cents = \$ _____
- (67) The volume of a rectangular box that measures 12-m by 5-m by 12-m is _____ m^3
- (68) If $x + 24 > 16$, then $x >$ _____
- (69) $\frac{5}{7} + \frac{7}{5} =$ _____ (mixed number)
- *(70) $181 \times 1111 + 9 =$ _____
- (71) 440 seconds = _____ minutes
- (72) For a rectangle with sides 5-cm and 8-cm, what is the ratio of its perimeter to its area? _____
- (73) If 9% of x is 18% of 6, then $x =$ _____
- (74) $(-15) + (-36) \div (-9) =$ _____
- (75) $42^2 + 14^2 =$ _____
- (76) $51^2 - 40^2 =$ _____
- (77) What is the distance between -12 and 18 on the number line? _____
- (78) $56 \times 143 =$ _____
- (79) The area of a square with diagonal 14 is _____
- *(80) $\sqrt{396900} =$ _____

2021 – 2022 University Interscholastic League Elementary Number Sense Test C – Key

| | | | |
|-----------------------|--------------------------|------------------------|-----------------------------------|
| (1) 241 | *(20) 234215 – 258869 | (38) $\frac{5}{8}$ | (59) 47 |
| (2) 96 | (21) 94 | (39) $\frac{1}{2}; .5$ | *(60) 23051 – 25477 |
| (3) 404 | (22) 12 | *(40) 2661 – 2940 | (61) 220 |
| (4) 41 | (23) 132 | (41) 361 | (62) -2 |
| (5) 420 | (24) .05375 | (42) 125 | (63) 1728 |
| (6) 2016 | (25) $\frac{5}{8}; .625$ | (43) 8 | (64) 5329 |
| (7) 14 | (26) 9506 | (44) 100 | (65) $\frac{1}{6}$ |
| (8) 33 | (27) $\frac{31}{50}$ | (45) 157 | (66) 3.65 |
| (9) 400 | (28) 20 | (46) $\frac{5}{6}$ | (67) 720 |
| *(10) 766061 – 846697 | (29) 517 | (47) $132\frac{4}{25}$ | (68) -8 |
| (11) 414600 | *(30) 170452 – 188394 | (48) 2964 | (69) $2\frac{4}{35}$ |
| (12) 2496 | (31) 265 | (49) 38 | *(70) 191045 – 211155 |
| (13) 8 | (32) 42 | *(50) 25622 – 28318 | (71) $7\frac{1}{3}; \frac{22}{3}$ |
| (14) 264 | (33) 5.81 | (51) 24 | (72) $\frac{13}{20}$ |
| (15) 0 | (34) $\frac{7}{11}$ | (52) 26 | (73) 12 |
| (16) 7 | (35) 9 | (53) 30 | (74) -11 |
| (17) 5060.1 | (36) 48 | (54) 4000 | (75) 1960 |
| (18) 88 | (37) 6969 | (55) 9 | (76) 1001 |
| (19) 2019 | | (56) 30 | (77) 30 |
| | | (57) 8 | (78) 8008 |
| | | (58) 16 | (79) 98 |
| | | | *(80) 599 – 661 |

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\frac{2}{3}$ it cannot be written as .666... or $\overline{.6}$.

Contestant Number _____

Contestant Name _____
 (to be filled in after judging)

UIL A+ Ready Writing Evaluation Sheet: Elementary, Middle School, and Junior High

Evaluation criteria are listed in the order of importance. Write the number that indicates the quality in each of the sub-areas and tally the points.

(50%) _____/100

INTEREST: Writing exhibits originality of thought, analytical acuteness and overall coherence of exposition.

| | <u>POOR</u> | <u>FAIR</u> | <u>GOOD</u> | <u>EXCELLENT</u> |
|------------------|-------------|-------------|-------------|------------------|
| Perceptive ideas | _____/7 | _____/13 | _____/19 | _____/25 |
| Originality | _____/7 | _____/13 | _____/19 | _____/25 |
| Examples | _____/7 | _____/13 | _____/19 | _____/25 |
| Title | _____/7 | _____/13 | _____/19 | _____/25 |

(35%) _____/70

ORGANIZATION: Each paragraph develops a clear idea or ideas and contributes to an understanding of the prompt.

| | <u>POOR</u> | <u>FAIR</u> | <u>GOOD</u> | <u>EXCELLENT</u> |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|------------------|
| Student answers prompt consistently <i>(either through supporting details, thesis, and/or plot points and character development)</i> | _____/3 | _____/7 | _____/11 | _____/14 |
| Well-developed paragraphs, focused on an idea or ideas | _____/3 | _____/7 | _____/11 | _____/14 |
| Transition | _____/3 | _____/7 | _____/11 | _____/14 |
| Support for student's response to prompt | _____/3 | _____/7 | _____/11 | _____/14 |
| Composition clarity (as a whole) | _____/3 | _____/7 | _____/11 | _____/14 |

(15%) _____/30

CORRECTNESS OF STYLE: Writing avoids errors in sentence structure, punctuation, grammar, word usage and spelling that hinder clear communication.

| | <u>POOR</u> | <u>FAIR</u> | <u>GOOD</u> | <u>EXCELLENT</u> |
|--------------------|-------------|-------------|-------------|------------------|
| Punctuation | _____/1 | _____/3 | _____/5 | _____/6 |
| Sentence structure | _____/1 | _____/3 | _____/5 | _____/6 |
| Grammar | _____/1 | _____/3 | _____/5 | _____/6 |
| Word Usage | _____/1 | _____/3 | _____/5 | _____/6 |
| Spelling | _____/1 | _____/3 | _____/5 | _____/6 |

TOTAL SCORE: _____/200

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:

Please read "Instructions for the Judges" for Ready Writing before evaluating contestants' papers. While judges are to consider all three elements in selecting the most effective compositions, they should weigh interest more than organization, and organization more than correctness of style.

AREAS NEEDING IMPROVEMENT:

Judge's signature _____



2021-22 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Superhero Life*

Imagine what the day in the life of a superhero is like. Write a creative essay explaining his or her daily life being as creative as you would like.

Topic: *Talking Dog*

You wake up one morning and dogs can talk. Write an essay describing your day.



2021-22 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Extreme Weather*

Think about a time when you experienced extreme weather. In an essay, describe what happened and how you felt that day.

Topic: *Good Place or Not*

Do you think your city or town is a good place to live? In an essay, explain the reasons for your opinion.



2021-22 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Greatest Talent*

Think about all of the things that you are good at doing. What is your greatest talent? Write an essay explaining your talent.

Topic: *Skilled Choice*

Would you rather be skilled at sports or at school? Write an essay explaining your choice.



2021-22 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *School Solution*

Think about a problem at your school. Next, write a letter to your principal explaining your solution to the problem. Remember you should not use your real name or that of your school.

Topic: *Deserted Island*

Imagine you and your friends became stranded on a deserted island. Write a story explaining the experience. You may be as creative as you like.



2021-22 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Pet Choice*

If you could have any pet, what would it be and why? Write an essay and give reasons for your pet choice.

Topic: *Physical Education Requirement*

Should students be required to take physical education? Write a letter to your campus principal explaining your opinion. Remember you should not use your real name or that of your school.



2021-22 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Adventurous Action*

Think about the most adventurous thing you have ever decided to do. Write an essay explaining what inspired you to do it and how you feel about the decision today.

Topic: *Inspirational Person*

Who is the most inspirational person in your life? Write an essay explaining why that person inspires you.

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ Initials _____

_____ Initials _____

Papers contending to place:

_____ Initials _____



**University Interscholastic League
A+ Science Contest • Answer Sheet**

Write your contestant number in the upper right corner and circle your grade level below.

Circle Grade Level:

6th grade

7th grade

8th grade

1. _____

18. _____

35. _____

2. _____

19. _____

36. _____

3. _____

20. _____

37. _____

4. _____

21. _____

38. _____

5. _____

22. _____

39. _____

6. _____

23. _____

40. _____

7. _____

24. _____

41. _____

8. _____

25. _____

42. _____

9. _____

26. _____

43. _____

10. _____

27. _____

44. _____

11. _____

28. _____

45. _____

12. _____

29. _____

46. _____

13. _____

30. _____

47. _____

14. _____

31. _____

48. _____

15. _____

32. _____

49. _____

16. _____

33. _____

50. _____

17. _____

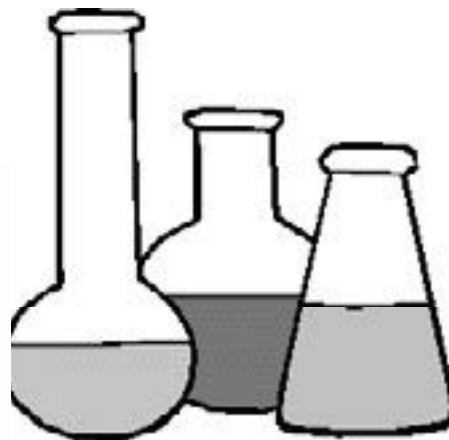
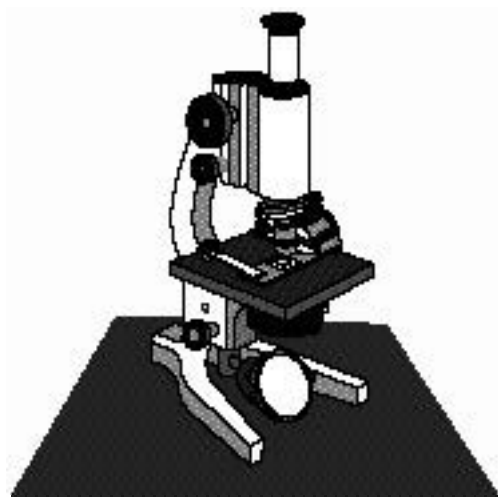
34. _____

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Science

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UNIVERSITY INTERSCHOLASTIC LEAGUE 2021-2022 SCIENCE INVITATIONAL TEST

1. Using the following information identify the insect.



| | | |
|----------------------------------------------------------------------------------------------------------------------|--------|-------------------|
| 1. Does the insect have wings? Remember most adult insects have 2 pairs of wings, but they're not always visible. | a. Yes | go to step 2 |
| | b. No | Order Hemiptera |
| 2. Does the insect have parallel wings? | a. Yes | go to step 3 |
| | b. No | go to step 4 |
| 3. Does the insect have a parallel line down the back that divides the wings? | a. Yes | Order Coleoptera |
| | b. No | Order Orthoptera |
| 4. Does the insect have 4 total wings? | a. Yes | go to step 5 |
| | b. No | Order Diptera |
| 5. Does the insect have long antennae? | a. Yes | go to step 6 |
| | b. No | Order Odonata |
| 6. Does the insect have a small body with large fan-shaped wings? | a. Yes | Order Lepidoptera |
| | b. No | Order Hymenoptera |

- A. Order Hemiptera
- B. Order Hymenoptera

- C. Order Diptera
- D. Order Orthoptera

2. Aluminum oxide is considered which of the following?

- A. Element
- B. Mixture

- C. Isotope
- D. Compound

3. Which demonstrates a chemical change?

- A. Shattered mirror
- B. Melted copper
- C. A catalytic converter
- D. Mixing green solution and colorless solution to produce a green solution

4. Within any group of elements on the periodic table the metallic character tends to do which of the following from top down to bottom in the group?
- A. Increase B. Decrease C. Remains constant
5. You think that you may have found a diamond while digging in your backyard. Its mass is 5.28 grams and the volume is 2 cm³. Using the density table provided, what material did you find?

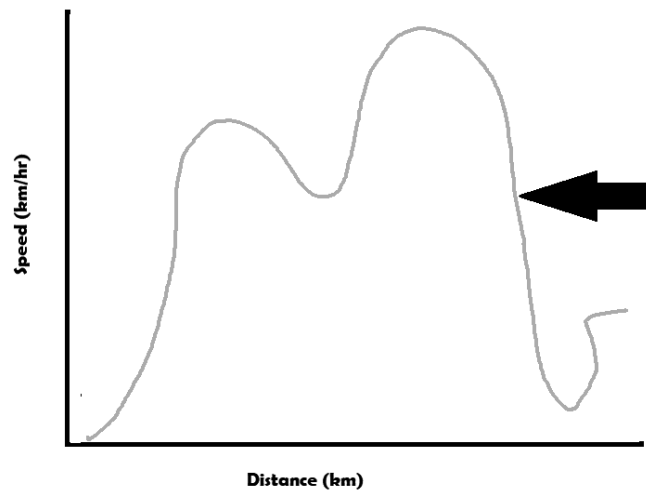
| Material | Density (g/cm³) |
|-----------------|---------------------------------------|
| Amethyst | 2.66 |
| Diamond | 3.52 |
| Quartz | 2.64 |
| Selenite | 2.40 |

- A. Diamond C. Amethyst
B. Quartz D. Selenite
6. ___ uses thermal energy from inside the earth.
- A. Nuclear Fission C. Biomass Energy
B. Solar Energy D. Geothermal Energy
7. Why do chefs often prefer pots that are good conductor of thermal energy when preparing meals?
- A. They result in even heating and uneven cooking of food
B. They result in uneven heating and cooking
C. They result in even heating and cooking
D. They result in even heating and uneven cooking
8. Which of these statements does not illustrate the correct movement of thermal energy in nature?
- A. In winter, closing a door to keep the cold air out
B. Ice melting in a glass of water
C. Cooking over a camp fire
D. Hot coffee sitting in an open coffee mug
9. What energy transformation is occurring in the image?



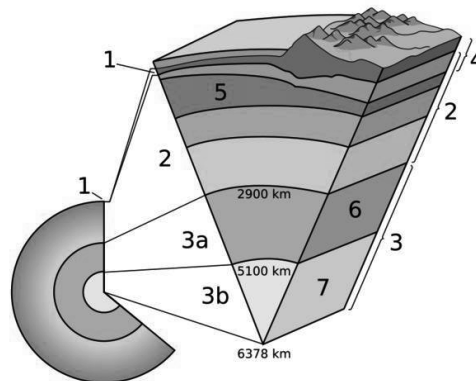
- A. Kinetic to gravitational C. Mechanical to thermal
B. Gravitational to kinetic D. Thermal to gravitational

10. Based on current positions of continents in what direction did South America move away from Pangaea?
 A. East
 B. West
 C. North
 D. South
11. In 2007, Voyager 2 crossed the boundary into the region at the edge of our solar system where solar winds run up against the gas between stars. This confirmed what about the shape of solar system?
 A. Squashed
 B. Rounded
 C. Donut
 D. Horseshoe
12. Which of the following was the first manned flight around the moon?
 A. Gemini 2
 B. Soyuz 12
 C. Apollo 8
 D. Apollo 11
13. Explain which of the following could occur at the segment specified on the graph?



- A. Accelerating
 B. Traveling downhill
 C. Starting cruise control
 D. Stopping at a red light

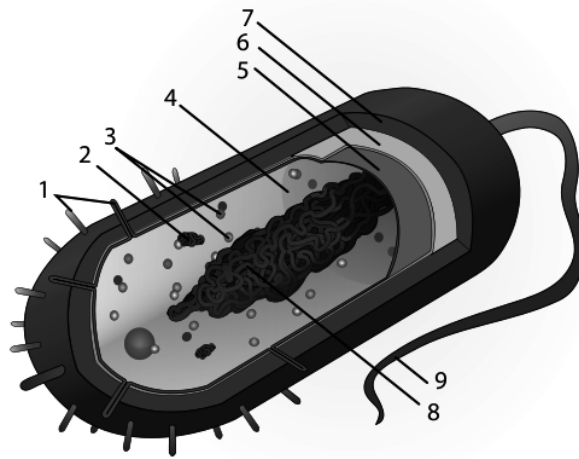
14. Looking at the model of the Earth, which structure is indicated at Position 5?



- A. Inner Core
 B. Outer Core
 C. Asthenosphere
 D. Lithosphere

15. A butterfly is drinking nectar from a flower. Which item is considered abiotic in this environment?
- A. Air
B. Plane
C. Butterfly
D. Flower
16. The upward growth of plant shoots is an instance of negative tropism and the downward growth of roots is positive tropism. Which term best describes this statement?
- A. Gravitropism
B. Geotropism
C. Phototropism
D. Posttropism
17. What is transferred in a food chain?
- A. Energy Only
B. Matter Only
C. Energy and Matter
18. Animals ultimately get the chemical potential energy from which of the following sources?
- A. People
B. Plants
C. Other animals
D. Moon

19. Based on the cell shown, which of the following is true?



- A. The cell is a prokaryote
B. The cell is a virus
C. The cell is a eukaryote
D. The cell is multicellular
20. What type of change can be noticed in a burning candle?
- A. Physical change
B. Chemical change
C. Both physical and chemical

21. In 2013, the Brazos River had the highest water and sediment discharge of the rivers in the state of Texas, according to Joseph Carlin. Which factor best describes how this can occur?
- A. Weathering
B. Erosion
C. Deposition
D. Delta
22. What was the first organisms sent into space intentionally?
- A. Dog
B. Fruit fly
C. Squirrel monkey
D. Mouse
23. In an ecosystem, if the prey population increases drastically, which of the following may occur?
- A. Predator population will decrease
B. Autotroph population will increase
C. Predator population will increase
D. Prey population will decrease
24. Which of the following are least likely to be present during primary succession?
- A. Grass
B. Moss
C. Lichen
D. Trees
25. A plant that exhibits signs of wilting may have which of the following?
- A. Decrease in internal temperature
B. Increase in water
C. Decrease in water
26. A person cuts their finger with a pair of scissors. The individual then develops a bacterial infection in the cut. Which of the following would be true?
- A. The body will produce new white blood cells
B. The body will develop a fever
C. The person should get vaccinated
D. Both A and B
27. The adrenal glands release chemicals that control the kidneys and the blood sugar levels. Which body systems do the adrenal glands most effect?
- A. Circulatory & excretory systems
B. Digestive & immune systems
C. Circulator & integumentary systems
D. Digestive & nervous systems
28. Many organisms migrate to enhance their survival. Which mammal listed makes the longest migration?
- A. Artic tern
B. Humpback whale
C. Leatherback turtle
D. Monarch butterfly

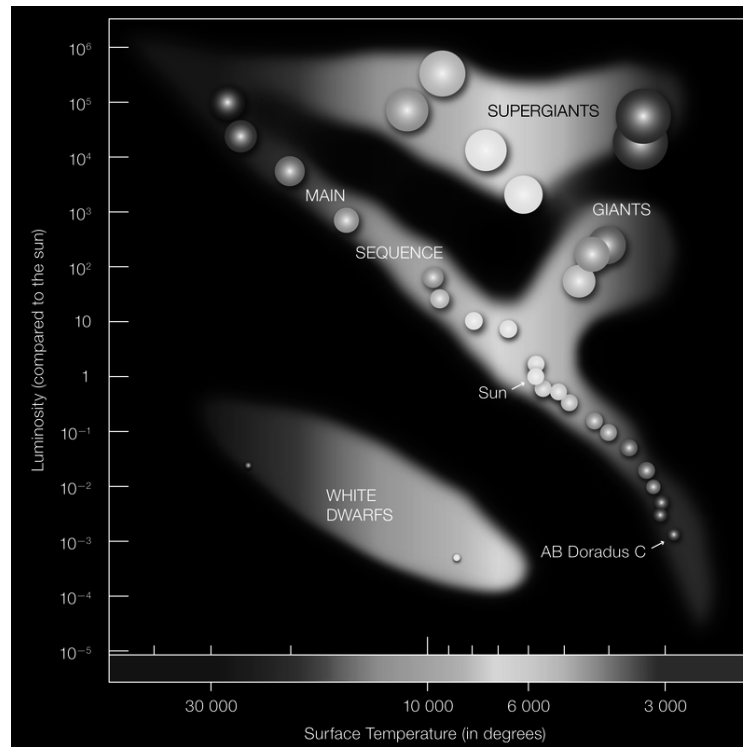


29. Which of the following environments would benefit a population of asexually reproducing organisms the most?
- An environment with rapid temperature fluctuations
 - An environment with very little change
 - An environment with a variety of climate changes
 - An environment that contains a large number of potential mates
30. Which one of the following traits cannot be inherited by an offspring?
- Cleft chin
 - Blue eyes
 - Curly hair
 - Scarred eyebrow
31. New street lights were installed near a park. The park goers notice several weeks later that some of the foliage near the new lights have changed shape. Which could account for this change observed?
- Geotropism
 - Phototropism
 - Thigmotropism
 - Hydrotropism
32. An atom has 10 protons. Which element would this be?
- Neon
 - Boron
 - Oxygen
 - Beryllium
33. A scientist needs an element that reacts like Arsenic but has a greater atomic mass. Which of the following elements should be used in this instance?
- Phosphorous
 - Bismuth
 - Nitrogen
 - Silicon
34. Three vehicles are traveling at the same speed but only one has a changing velocity. Which of the following helps explain why this can occur?
- One car accelerates faster than the others
 - One car is traveling in the opposite direction
 - One car is traveling along a curve in the road
 - One car needs a smaller force to move it
35. Which paper airplane has the greatest amount of force applied to it?

| Airplane Prototype # | Mass (kg) | Acceleration (m/s ²) |
|----------------------|-----------|----------------------------------|
| 1 | .21 | 1.5 |
| 2 | .11 | 3.2 |
| 3 | .25 | 1.75 |
| 4 | .19 | 2.5 |

- A. 1 B. 2 C. 3 D. 4

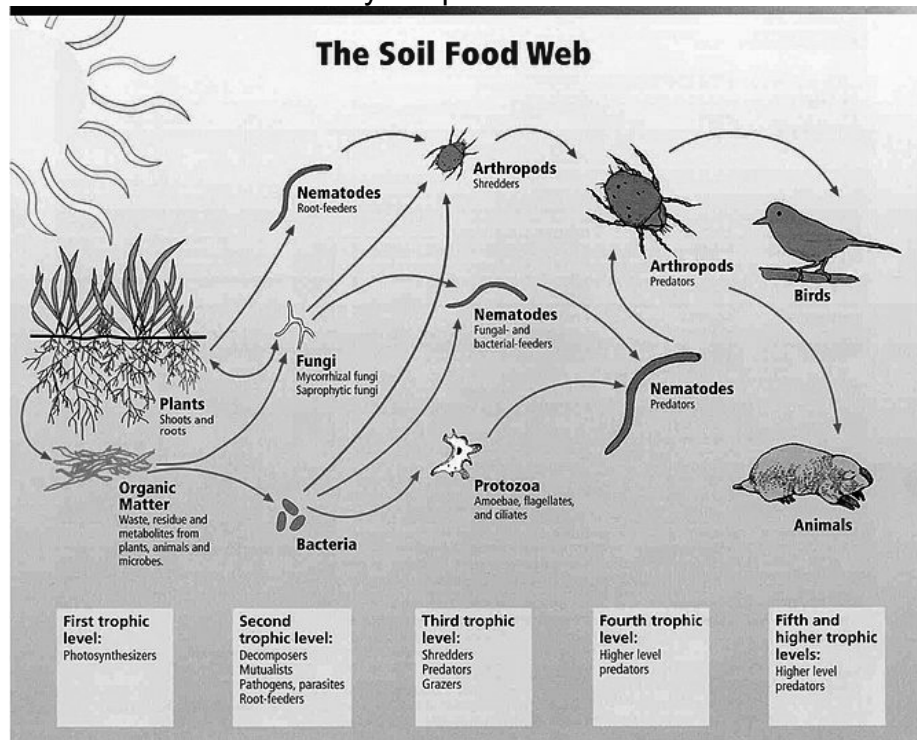
36. Which of the locations on Earth would experience the least fluctuation of daylight in a year?
- A. North pole
 B. South pole
 C. Equator
 D. Tropic of cancer
37. A person observes a new moon in the night sky. Which of the following phases will most likely occur after the new moon?
- A. Waxing gibbous
 B. Waxing crescent
 C. Waning gibbous
 D. Waning crescent
38. Which of these statements about the super giant Betelgeuse is most accurate?



European Southern Observatory (ESO)

- A. It is less bright than the sun and has a temperature below 3500 K
 B. It is less bright than the sun and has a temperature above 3500 K
 C. It is brighter than the sun and has a temperature below 3500 K
 D. It is brighter than the sun and has a temperature above 3500 K
39. Since the sun is the closest star to earth, which of the following statements is most accurate?
- A. It is hotter than many other stars
 B. It is denser than many other stars
 C. We do not consider it a star
 D. We obtain more energy from it
40. Convection currents do not occur in which of the following materials?
- A. Gas
 B. Liquid
 C. Solid
 D. None of these

41. This year they are predicting a more active hurricane season, which condition listed below is necessary for the formation of a hurricane?
- Warm ocean water
 - Strong cold front
 - Cool ocean water
 - Tropical winds
42. A crater that is located in a flat, arid environment will likely change in which of the following ways over time?
- Fill with rain water
 - Will collapse inside its self
 - Carter will become deeper
 - Erosion causes crater to become shallower
43. At this type of plate boundary, mountain ranges can form, volcanoes will form parallel to the boundary, and earthquakes are common. Which type of boundary does this best describe?
- Convergent
 - Subduction
 - Divergent
 - Transformative
44. How many organisms in this food web only eat producers?



Relationships between soil food web, plants, organic matter, and birds and mammals
 Image courtesy of USDA Natural Resources Conservation Service
http://soils.usda.gov/sqi/soil_quality/soil_biology/soil_food_web.html.

- 1
- 2
- 3
- 4

45. Bowhead whales feed almost exclusively on marine invertebrates such as krill and copepods. Since these whales eat these marine invertebrates they could most likely be classified as which of the following?
- A. Predator
 - B. Autotrophic
 - C. Parasitic
 - D. Host

46. Two balls have the masses shown:



- Which situations would show work being done on these balls?
- A. Person holding both balls while seated
 - B. Holding the larger ball one meter above the ground
 - C. Standing still and holding the smaller ball
 - D. Lifting the small ball from the ground to the top of a table that is one meter high
47. One molar acid was spilled on that lab table. For safety, some baking soda was sprinkled over the spill. Which is the best evidence a chemical reaction has occurred?
- A. Formation of bubbles
 - B. Absorptions of liquid
 - C. Baking soda dissolves
 - D. Acid evaporates
48. In a lab, a student doesn't understand a part of the procedures written in the lab experiment. In this particular situation the student should:
- A. Proceed with the lab
 - B. Skip the step and do it later
 - C. Go to another group
 - D. Ask the instructor
49. When mixing acids and water together you should always do which of the following?
- A. Add water to acid
 - B. Combine acid and water at the same time
 - C. Add acid to water
 - D. Add a third solution to the mixture
50. Which of the following should not be disposed of properly in a special container?
- A. Broken test tube
 - B. Used battery
 - C. Used syringe
 - D. Vegetable oil

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-2022 SCIENCE
INVITATIONAL TEST**

Answer Key

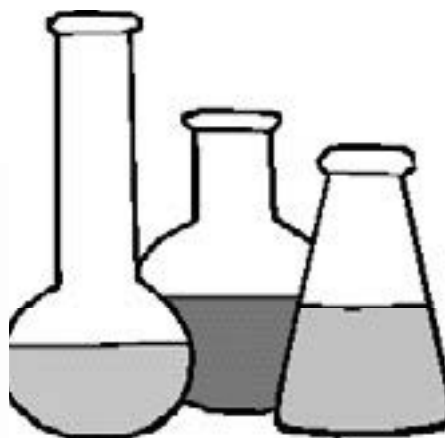
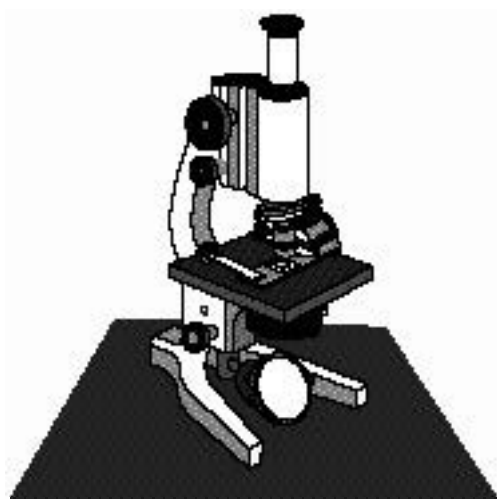
| | | |
|-------|-------|-------|
| 1. B | 18. B | 35. D |
| 2. D | 19. A | 36. C |
| 3. C | 20. C | 37. B |
| 4. A | 21. C | 38. C |
| 5. B | 22. B | 39. D |
| 6. D | 23. C | 40. C |
| 7. C | 24. D | 41. A |
| 8. A | 25. C | 42. D |
| 9. B | 26. D | 43. A |
| 10. B | 27. A | 44. B |
| 11. A | 28. B | 45. A |
| 12. C | 29. B | 46. D |
| 13. D | 30. D | 47. A |
| 14. C | 31. B | 48. D |
| 15. A | 32. A | 49. C |
| 16. B | 33. B | 50. D |
| 17. C | 34. C | |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Science

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-2022 SCIENCE
FALL/WINTER DISTRICT TEST**

1. Which substance in the equation for the reaction of methane is classified as an element?



- A. CH_4
B. O_2
C. CO_2
D. H_2O
2. Which familiar element makes up almost half of the mass of earth's crust?
A. H B. Si C. O_2 D. Fe
3. What is the density of a material that has a volume of 3.25 cm^3 and a mass of 14.75 g ?
A. $.22 \text{ kg/cm}^3$
B. 4.54 kg/cm^3
C. 220.3 kg/cm^3
D. $.0045 \text{ kg/cm}^3$
4. The advantage of this type of energy is that it can produce low cost energy, is reliable, and has zero carbon emissions. This best describes which of the following?
A. Wind energy C. Solar energy
B. Nuclear energy D. Geothermal energy
5. A tennis ball is dropped from a step stool one meter high. At which position does the tennis ball have the greatest kinetic energy and least potential energy?
A. At 1 meter high
B. At .5 meter high
C. At .25 meter high
D. At 0 meter high
6. A student makes a hot air balloon out of material they find at their house. What energy transformation occurs when a flame from a match lifts the balloon into the air?
A. Mechanical to chemical
B. Chemical to mechanical to thermal
C. Chemical to thermal to mechanical
D. Thermal to chemical to light

7. An unknown sample of an element is shiny and can be shaped when hammered. Which row of the table would correspond to properties of this element?

| | Conductive | Melts Below 25° C |
|---|-------------------|--------------------------|
| A | X | ✓ |
| B | X | X |
| C | ✓ | ✓ |
| D | ✓ | X |

- A. A B. B C. C D. D

8. A cup of hot chocolate is placed on a table at room temperature and is left there for ten minutes. Which of the following best describes what will occur in this situation?
- A. The hot chocolate will remain the same temperature
 - B. The hot chocolate will gain heat from the environment
 - C. The hot chocolate will lose heat to the environment

9. This particular rock was found near the base of a volcano. After looking at this sample, which type of rock is it?



- A. Metamorphic B. Igneous C. Sedimentary

10. Which of the following is not a divergent plate boundary?

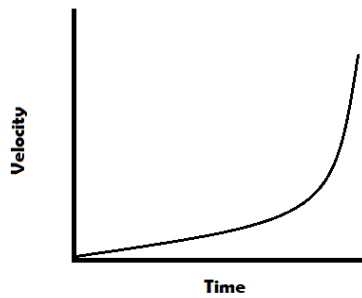
- A. Great Rift Valley in East Africa
- B. East Pacific Rise
- C. San Andreas Fault
- D. Mid-Atlantic Ridge

11. Per Newton's First Law of Motion, objects will continue to move in a straight line unless it is acted on by an unbalanced force. Which best explains the motion of a planet?

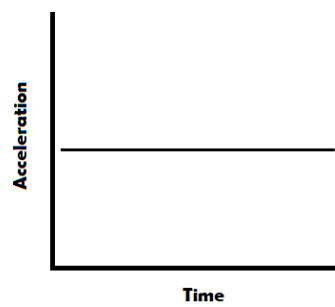
- A. There is no unbalanced force acting on the planet because space is a vacuum
- B. The gravitational force pulls the planet towards the sun at equal and opposite forces causing no unbalanced forces
- C. The sun moves in an elliptical orbit around the planet
- D. The planet moves in an elliptical orbit because of the gravitational force between the planet and the sun

12. A train is speeding up at a constant rate. Which graph best shows this?

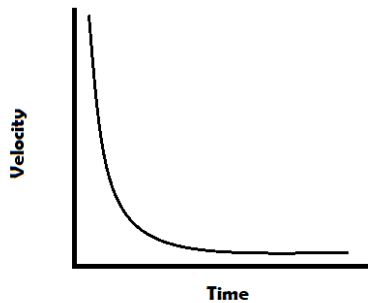
A.



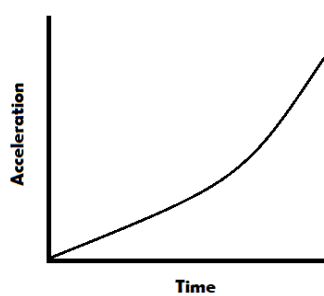
C.



B.



D.



13. Without the same amount of gravity as on Earth, what happens to the height of a person while in outer space?

A. Become taller

B. Become shorter

C. Remain the same

14. An organism has the following characteristics:

➤ Multicellular

➤ Autotrophic

➤ Has cell wall and nucleus

➤ Reproduces sexually or asexually

Which domain should this organism belong to?

A. Bacteria

B. Archaea

C. Prokaryota

D. Eukaryota

15. Photosynthesis is a ___ process.

A. Anabolic

B. Catabolic

C. Heterotrophic

D. Isotonic

16. All the interconnected feeding relationships in an ecosystem make up a:

A. Food interaction

B. Food chain

C. Food network

D. Food web

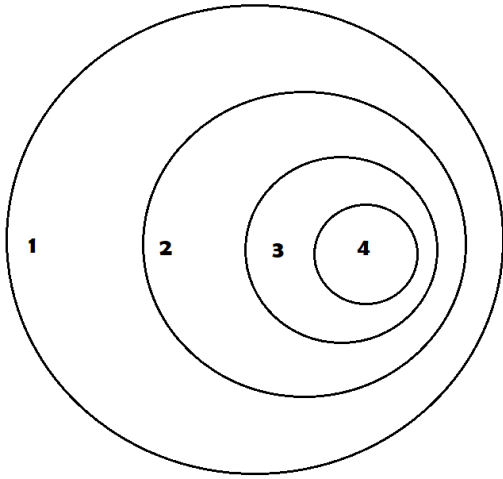
17. Gasoline is made up of organic compounds. What are the main elements in many organic compounds?

A. He, C, Na

B. Na, H, N

C. C, H, O

D. Ar, O, He



18. The graphic can be utilized to show the levels of organization within living organisms. If each circle is made from smaller circles inside it, what does circle one represent?

- A. Organ
- B. Cell
- C. Tissue
- D. Organ system

19. A paper sitting on a desk at rest has which of the following statements that best applies?

- A. There are no forces on the paper
- B. The paper pushes on the desk only
- C. The desk pushes on the paper only
- D. The forces acting on the paper are balanced

20. As an object is slid across the floor, what force must be overcome in order for the object to move?

- A. Support
- B. Friction
- C. Air resistance
- D. Gravity

21. Which event most likely causes an environmental disturbance in a grassland?

- A. Earthquake
- B. Volcanic eruption
- C. Hurricane
- D. Fire due to lightning strike

22. Most rabbits have a dark colored coat, but arctic hares have a white coat. How does this help it survive in its environment?

- A. It makes the hare warmer in summer
- B. It allows the hare to camouflage
- C. It appears smaller to predators
- D. It is able to absorb heat from the sun

23. Which situation will most likely result in an establishment of pioneer species in an ecosystem?

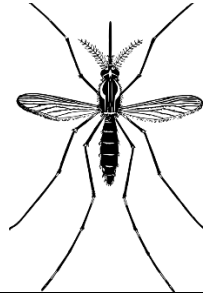
- A. Seasonal flooding in a wetland
- B. Harvesting a corn crop
- C. A fire caused by lightning in a grassland
- D. Cattle grazing in a field

24. How does secondary succession help restore equilibrium to an area destroyed by a natural disaster?

- A. Increases in number and types of species
- B. Species become extinct
- C. Stops further natural disasters from occurring
- D. Decreases the rate of natural selection

25. As our sun begins to die around 5 billion years from now, it will begin to expand. Why will the earth no longer be in the habitable zone of the sun?
- A. Water will become too dense
 - B. Tides will become extreme
 - C. It will become too hot to support life
 - D. Gravity will change the asteroid's orbital plane

26. Using the following information identify the insect.



| | | |
|----------------------------------------------------------------------------------------------------------------------|--------|-------------------|
| 1. Does the insect have wings? Remember most adult insects have 2 pairs of wings, but they're not always visible. | a. Yes | go to step 2 |
| | b. No | Order Hemiptera |
| 2. Does the insect have parallel wings? | a. Yes | go to step 3 |
| | b. No | go to step 4 |
| 3. Does the insect have a parallel line down the back that divides the wings? | a. Yes | Order Coleoptera |
| | b. No | Order Orthoptera |
| 4. Does the insect have 4 total wings? | a. Yes | go to step 5 |
| | b. No | Order Diptera |
| 5. Does the insect have long antennae? | a. Yes | go to step 6 |
| | b. No | Order Odonata |
| 6. Does the insect have a small body with large fan-shaped wings? | a. Yes | Order Lepidoptera |
| | b. No | Order Hymenoptera |

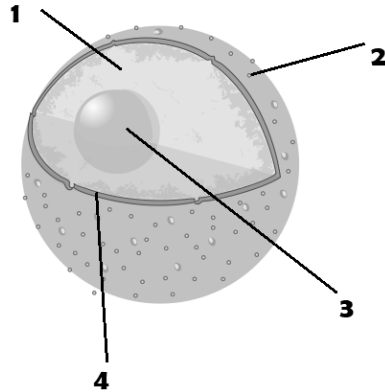
- A. Order Hemiptera
- B. Order Hymenoptera

- C. Order Orthoptera
- D. Order Diptera

27. Unlike animals that have circulatory systems, a plant does not. What have they developed instead to allow the plant to transport water and nutrients?
- A. Xylem
 - B. Chlorophyll
 - C. Thykolid
 - D. Nucleus

28. The excretory system in humans performs a function similar to that of what in a plant?
- A. Shoot system
 - B. Root system
 - C. Skeletal system
 - D. Vascular system

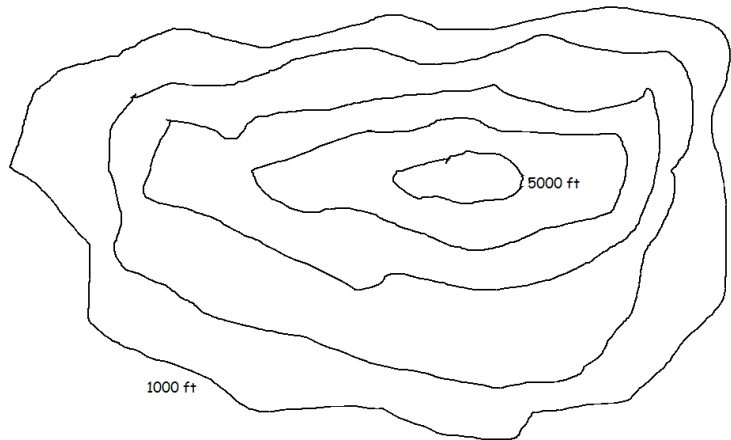
29. Which of the following would be the body's response to dehydration?
- A. Increase in body temperature
 B. Increase in respiratory rate
 C. Decreases urine production
 D. Increase sleep
30. A person consumes food that is contaminated by germs. The body's response to most quickly remove the germs would be to...
- A. Exhale rapidly
 B. Sneeze
 C. Cough
 D. Vomit
31. Some plants can be grown from leaf cuttings. These cuttings form the new plant. How does the genetic material of the offspring compare to the parent?
- A. Equal and identical
 B. Less than the parent
 C. More than the parent
 D. Equal but opposite
32. Which organelle store's the cells genetic material?
- A. 1
 B. 2
 C. 3
 D. 4
33. What types of particles are found in the cloud surrounding the atom's nucleus?
- A. Positively charged particles and negatively charges particles
 B. Negatively charges particles only
 C. Neutral charges particles and positively charged particles
 D. Positively charged particles only
34. Sodium sulfide's chemical formula is Na_2S . How many sulfur atoms are in this formula?
- A. 0
 B. 1
 C. 2
 D. 3
35. A kid jumps from a dock onto a jet ski, the jet ski dips into the water. This is an example of which of the following laws?
- A. 1st law of motion
 B. 2nd law of motion
 C. 3rd law of motion
 D. Law of gravitation
36. A mother is taking her child for a walk in a stroller. The amount of force needed to move the stroller most likely depends on the stroller's
- A. Mass
 B. Direction of movement
 C. Distance moved
 D. Rate at which it is moving
37. If a planet takes longer to experience a full day as compared to complete a full year. Which of the following is most likely the best explanation for this occurrence?
- A. It takes less time to rotate than it does to revolve
 B. It takes more time to rotate than it does to revolve
 C. It takes the same amount of time to rotate and revolve
 D. It deals with the tilt of the planet



38. A demonstration uses a flashlight and tennis ball to show the phases of the lunar cycle. What would be the best to add to this model?
- A. Asteroid
B. Sun
C. Earth
D. Comet
39. This theory suggests the universe is continually expanding and contracting:
- A. Oscillating universe
B. Anthropic universe
C. Kepler's universe
D. Ptolemy's universe
40. The light from our sun takes about eight minutes to reach the earth. Our nearby stellar neighbors include the Alpha Centauri group along with the Sirius star system. Light from these stars can reach the earth in –
- A. Seconds
B. Minutes
C. Years
D. Millenniums
41. Volcanic activity along the ring of fire is the best evidence of which of the following?
- A. Tidal flow
B. Continental plate movement
C. Solar cycles
D. Greenhouse effect

42. What is the contour interval of the map?

- A. 500 feet
B. 1000 feet
C. 1500 feet
D. 2000 feet



43. Hurricane's form over the oceans. Which area would most likely produce a violent storm system?
- A. Tropic of cancer
B. Tropic of Capricorn
C. Artic circle
D. Equator
44. Surface water evaporates into the atmosphere, condenses and eventually will return to earth as precipitation. What part of this system is most essential for a functioning water cycle?
- A. Radiant energy from the sun
B. The location of the oceans
C. Consumption of water by organisms
D. Amount of water plants use

45. Records show a town's annual high and low temperatures over the last two centuries. How should this data be properly displayed?
- A. Pie graph
 - B. Scatter plot
 - C. Bar graph
 - D. Double line graph
46. An autotrophic organism that successfully lives in an estuary must have an adaptation that will allow it to:
- A. Produce its own food
 - B. Absorb nutrients
 - C. Filter excess salt
 - D. Store excess oxygen
47. Students are investigating ways that glass tubing can be bent. Which of the following is the greatest safety hazard for this particular investigation?
- A. Electric shock
 - B. Broken glass
 - C. Toxic chemicals
 - D. Chemical reaction
48. Students mix sodium hydroxide and water together in a beaker. They note that there is an increase in the temperature of the beaker. Which form of energy best describes this observation?
- A. Radiant
 - B. Electrical
 - C. Sound
 - D. Thermal
49. Which of the following shows that the ozone layer over Antarctica is thinning?
- A. Decrease in levels of UV radiation being recorded
 - B. Increase in levels of UV radiation being recorded
 - C. Constant levels of UV radiation being recorded
50. A student designs an experiment to test exercise on breathing rates. What piece of equipment is needed to conduct this experiment?
- A. Timing device
 - B. Stethoscope
 - C. Spectrometer
 - D. Thermometer

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021 – 2022 SCIENCE
FALL/WINTER TEST**

Answer Key

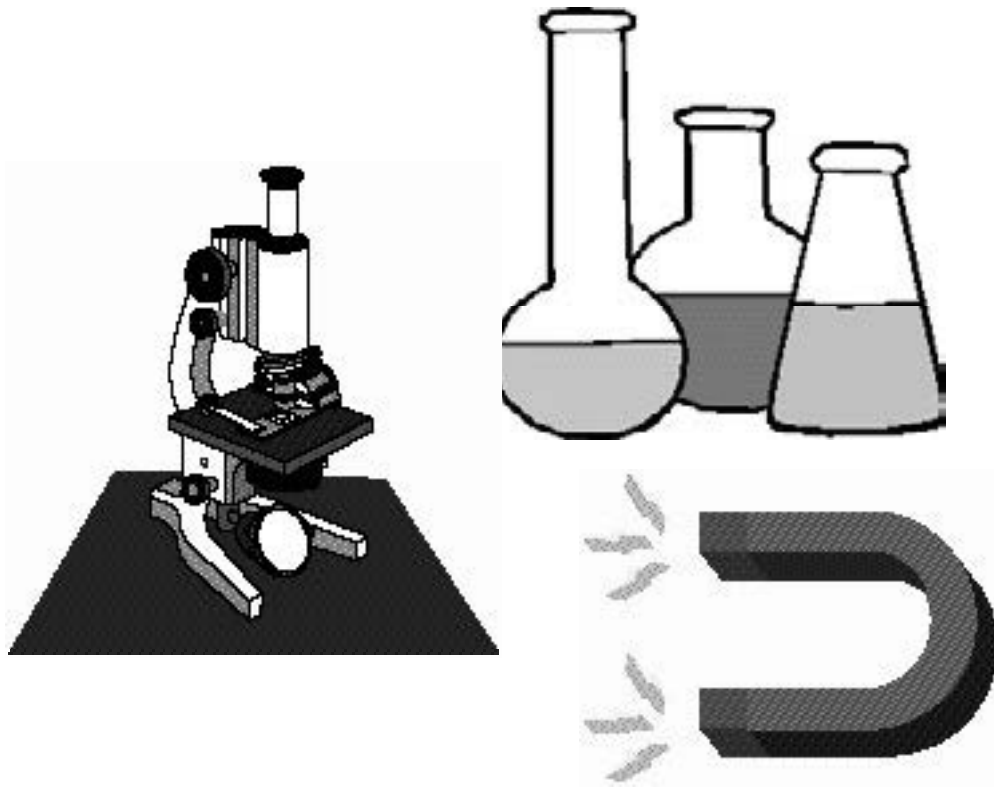
| | | |
|------|------|------|
| 1. B | 18.D | 35.C |
| 2. C | 19.D | 36.A |
| 3. D | 20.B | 37.B |
| 4. B | 21.D | 38.C |
| 5. C | 22.B | 39.A |
| 6. C | 23.C | 40.C |
| 7. D | 24.A | 41.B |
| 8. C | 25.C | 42.B |
| 9. B | 26.D | 43.D |
| 10.C | 27.A | 44.A |
| 11.D | 28.D | 45.D |
| 12.C | 29.C | 46.C |
| 13.A | 30.D | 47.B |
| 14.D | 31.A | 48.D |
| 15.A | 32.C | 49.B |
| 16.D | 33.B | 50.A |
| 17.C | 34.B | |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Science

**DO NOT OPEN TEST
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UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-2022 SCIENCE
SPRING TEST

1. Many evidences for chemical change occur by the sense of sight. Which of the following is not a chemical change evident by using sight?
 - A. Color change
 - B. Bubble formation
 - C. Precipitate formation
 - D. Strong odor

2. The density of carbon is 2.27 g/cm^3 . If a sample has a volume of 1.75 cm^3 , its mass must be which of the following?
 - A. 1.29 g
 - B. 3.97 g
 - C. .77 g
 - D. 4.02 g

3. This energy has the ability to generate electricity without emitting greenhouse gases but is reliant stable conditions in the environment. This energy can also cause environmental and social threats to humans, flora, and fauna. Based on these statements, which of the following energy is it referring too?
 - A. Coal
 - B. Oil
 - C. Radiant
 - D. Hydropower

4. Whipping eggs demonstrates which of the following?
 - A. Physical change
 - B. Chemical change

5. Based on the physical properties of a sample, which best classifies it?
 - ❖ Dull
 - ❖ Yellow
 - ❖ Powdery
 - ❖ Egg odor
 - ❖ Shatters when hammered
 - A. Metal
 - B. Metalloid
 - C. Nonmetal
 - D. Gas

6. A heat drying dishwasher dries dishes by primarily converting –
 - A. Heat to electrical
 - B. Electrical to mechanical
 - C. Electrical to heat to light
 - D. Electrical to heat to mechanical

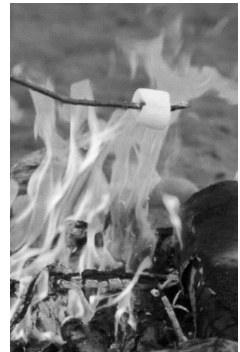


7. The four activities occur:
- 1) Boy swimming laps in a pool
 - 2) Girl standing on a diving board
 - 3) Boy spiking a volleyball
 - 4) Girl holding a volleyball

Correctly identify each activity as kinetic or potential energy.

- A. 1 and 2 are PE; 3 and 4 are KE
 - B. 1 and 3 are KE; 2 and 4 are PE
 - C. 1 and 4 are PE; 2 and 3 are KE
 - D. 1 – 4 are KE
8. A car travels 25 kilometers in 30 minutes. What is the average speed of this car?
- A. 50 km/hr
 - B. .83 km/hr
 - C. 1.2 km/hr
 - D. 750 km/hr

9. A person roasting a marshmallow on the side of the fire gets thermal energy transferred to the marshmallow primarily by which of the following?
- A. Convection
 - B. Radiation
 - C. Conduction



10. Which list correctly characterizes organisms that are classified as mammals?
- A. Unicellular, prokaryotic, autotrophic
 - B. Unicellular, eukaryotic, heterotrophic
 - C. Multicellular, prokaryotic, autotrophic
 - D. Multicellular, eukaryotic, heterotrophic
11. Which one of the following tectonic plates listed is not one of the major tectonic plates?
- A. Caribbean plate
 - B. North American plate
 - C. Eurasian plate
 - D. African plate
12. There are numerous asteroids in our solar system. Most of them are located in the main asteroid belt between the orbits of which planets?
- A. Earth and Mars
 - B. Mars and Jupiter
 - C. Jupiter and Saturn
 - D. Venus and Mercury
13. What force causes Mercury to travel in a curved path around the Sun?
- A. The electromagnetic attraction between the Sun and Mercury
 - B. The electromagnetic attraction between Mercury and Venus
 - C. The gravitational attraction between Mercury and Venus
 - D. The gravitational attraction between Mercury and the Sun
14. Which of the following would not be associated with a divergent plate margin?
- A. Shallow focus earthquakes
 - B. Highly explosive volcanoes
 - C. Basaltic fissure eruptions
 - D. Sea floor spreading

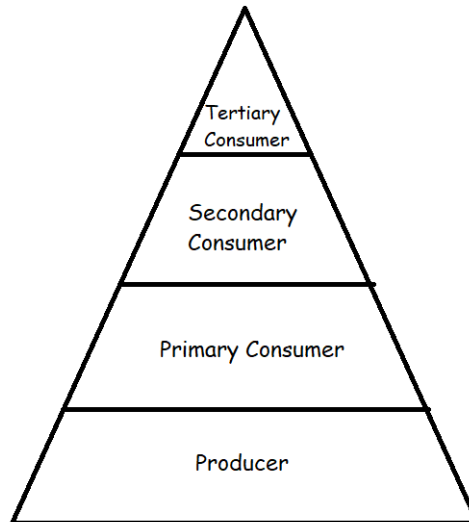
15. Someone gives you the following organisms:

Musca domestica and *Musca sorbens*

Based on the names of these organisms, which of the following is the same for these organisms?

- A. Genus
- B. Family
- C. Order
- D. All of these
- E. None of these

16. The flow of energy in a food chains is modeled in the energy pyramid shown.



Based on the model, which consumer would receive the greatest amount of energy captured by autotrophic organisms in this food chain?

- A. Producers
- B. Primary consumers
- C. Secondary consumers
- D. Tertiary consumers

17. Which of the digestive system processes would be best classified as a physical change?

- A. Saliva converting starch into sugars
- B. Bacteria breaking down food in the intestine
- C. Teeth crushing food in the mouth
- D. Bile breaking down lipids

18. When do plants naturally photosynthesize?

- A. Day time
- B. Night time
- C. Both day and night

19. Four people volunteer to move boxes. The following shows the boxes masses.



| | |
|-------|-------|
| Box 1 | 5 kg |
| Box 2 | 10 kg |
| Box 3 | 11 kg |
| Box 4 | 30 kg |

Box 1 was pushed two meters; Box 2 and 3 were pushed five meters each; and Box 4 could not be moved. Which box had no work done in this scenario?

- A. 1
- B. 2
- C. 3
- D. 4

20. Mechanical weathering produces which of the following?

- A. Clay minerals
- B. Quartz
- C. Smaller particles
- D. Calcium carbonate

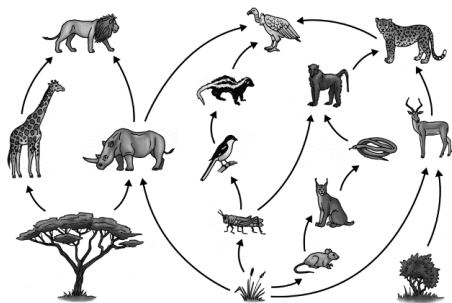
21. While energy can be transformed or transferred, the total amount of energy will

- A. Remain constant
- B. Constantly increase
- C. Constantly decrease

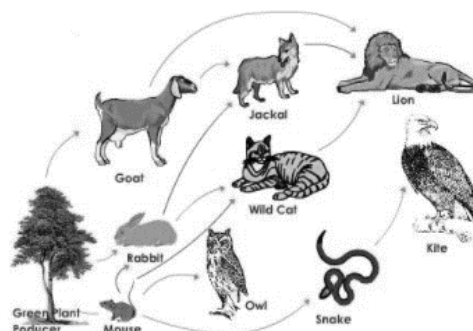
22. Why is it necessary for astronauts on the International Space Station to generate and recycle oxygen?

- A. It provides energy for fuel tanks
- B. It protects the space station from cosmic radiation
- C. There is not enough of it in space to sustain life
- D. It is a byproduct of human respiration

23.



Ecosystem 1



Ecosystem 2

Which ecosystem would be more likely to survive if a disease killed off the trees and shrubs?

- A. Ecosystem 1 because most of the animals could consume other organisms
- B. Ecosystem 2 because the predators can still compete for food
- C. Ecosystem 1 because it has numerous top predators
- D. Ecosystem 2 because it has more herbivores

24. During the winter storm of 2021, many people in Texas had their water pipes freeze due to prolonged temperatures below freezing. Based on this, which of the following statements is correct?
- A. Both hot and cold water froze at the same time due to the natural movement of heat
 - B. Hot water froze first due to the natural movement of heat from warmer to colder
 - C. Cold water froze first due to the natural movement of heat from colder to warmer
25. Which of the following structures can be found in all living cells?
- A. Ribosomes
 - B. Nucleus
 - C. Mitochondria
 - D. Cell wall
26. A cross country runner uses increased amounts of oxygen for their muscles during a meet. Which body system is responsible for getting the oxygen to the muscles?
- A. Respiratory
 - B. Integumentary
 - C. Nervous
 - D. Circulatory
27. Charles Darwin's voyage to the Galapagos Island and the study of the beak shape of the ground finches was integral to his research and subsequent ideas about ___ through ___.
- A. Speciation, evolution
 - B. Isolation, speciation
 - C. Evolution, natural selection
 - D. Degradation, genetics
28. Which of the following is not one of the main terrestrial biomes?
- A. Tundra
 - B. Temperature brush
 - C. Grassland
 - D. Rainforest
29. Using the information below, identify the species name of the smiley face shown.



| Characteristics | Species |
|--------------------------------|-----------------------|
| 1. Teeth visible | Go to 2 |
| Teeth not visible | Go to 4 |
| 2. Has a wide, toothy smile | Smilius toothus |
| Is not smiling | Go to 3 |
| 3. Visibly crying | Smilius dramaticus |
| Frowning | Smilius upsetius |
| 4. Eyes are symmetrical | Go to 5 |
| 5. Eyes are shaped like hearts | Smilius valentines |
| Eyes are shaped like ovals | Smilius traditionalus |

- A. Smilius traditionalus
- B. Smilius upsetius
- C. Smilius toothus
- D. Smilius dramaticus

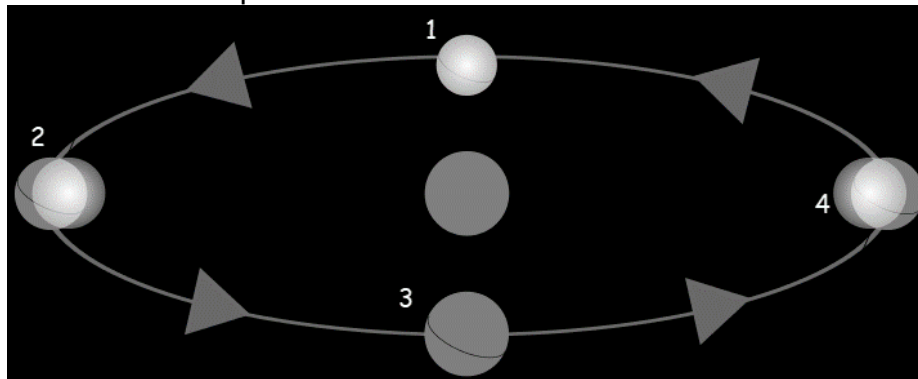
30. Correctly identify which of the following is not an external stimulus?
- A. Putting on a jacket because it is cold
 - B. A predator lunging at prey and it runs away
 - C. A cow feeling thirsty and drink water
 - D. Seeing a spider and then screaming
31. Which of the disorders listed follows classical Mendelian inheritance?
- A. Type I diabetes
 - B. Downs syndrome
 - C. Seasonal allergies
 - D. Cystic fibrosis
32. Haploid is a term used to describe a type of cell that contains:
- A. RNA
 - B. 1 set of chromosomes
 - C. 2 sets of chromosomes
 - D. A nucleus
33. Stimuli and response are related, which of the following best represents this correctly?
- A. Crime and punishment
 - B. Rise and fall
 - C. Trial and error
 - D. Cause and effect
34. Based on which of the following observations would most likely cause a new substance to form?
- A. A substance dissolves
 - B. A substance causes bubbles to form
 - C. A substance sank to the bottom of a liquid
 - D. A substance floated on top of a liquid
35. This chemical, also called noradrenaline, can sometimes act as a hormone as well. Its primary role is part of your body's stress response. It works with the hormone adrenaline to create the "fight-or-flight" feeling. The formula is shown below.
- $$\text{C}_8\text{H}_{11}\text{NO}_3$$
- How many atoms are in this molecule?
- A. 22
 - B. 23
 - C. 25
 - D. 4
36. The average acceleration of the plane is 2.5 m/s^2 . If a person has a mass of 60 kg, what net force in newtons did the person experience?
- A. .04 N
 - B. 24 N
 - C. 150 N
 - D. 375 N
37. A student uses a magnet to move a toy car with a mass of .25 kg. The magnet exerts a force of 5 N, which causes the toy cars to begin to move. What is the acceleration of this toy car when it begins to move?
- A. 20 m/s^2
 - B. 1.25 m/s^2
 - C. 5 m/s^2
 - D. $.05 \text{ m/s}^2$
38. If you travel to Alaska during the month of June. Which of the following statements is correct?
- A. There will be less hours of daylight than night
 - B. It will be winter
 - C. There will be more hours of daylight than night
 - D. The moon will be brighter in the night sky

39. Which of the following students correctly described a star?

| Student | Description |
|---------|-------------------------------------------------------------------------------------------------------------------------|
| 1 | A collection of hot gases that occasionally produces light due to nuclear reactions |
| 2 | A collection of dusts and gases that forms a sphere but does not produce light |
| 3 | A collection of gases from several nebula that are hot enough to produce light from fusion and fission |
| 4 | A sphere of matter with a density and a temperature that is great enough to have a nuclear reaction in the center of it |

- A. Student 1
 B. Student 2
 C. Student 3
 D. Student 4

40. The diagram below shows four positions of the Earth's orbit around the sun.



The northern hemisphere will experience the beginning of spring when Earth is at position –

- A. 1
 B. 2
 C. 3
 D. 4

41. The color of a star is most closely related to its

- A. Age
 B. Mass
 C. Temperature
 D. Composition

42. A scale of 1:200 on a topographic map would indicate which of the following:

- A. One unit on the map would equal two hundred units in the real world
 B. The map represents the entire Earth
 C. One unit on the map is greater than one unit in the real world
 D. Two hundred units on the map equals one unit in the real world

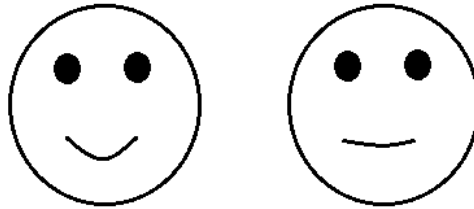
43. Which of the following cannot be directly attributed to the interaction of the lithospheres' plates?

- A. Appalachian Mountains
 B. Ontario Lake
 C. Himalayan Mountains
 D. East African Rift

44. If the Earth turned slightly faster on its axis, how might we be affected?
- A. Longer days and shorter nights; therefore temperature difference would be greater between night and day.
 - B. Shorter days and longer nights; therefore temperature difference would be less between night and day
 - C. Longer days and longer nights; therefore temperature difference would be greater between night and day
 - D. Shorter days and shorter nights; therefore temperature difference would be less between night and day

45. Use the following picture to determine the symbiotic relationship demonstrated.

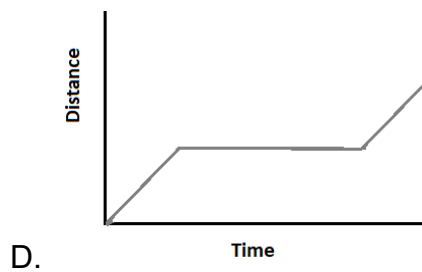
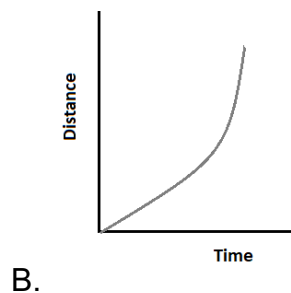
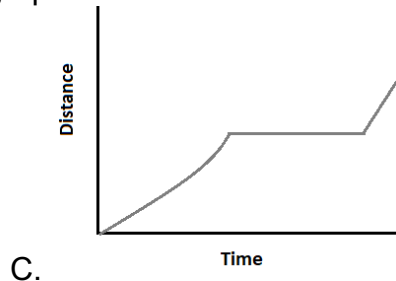
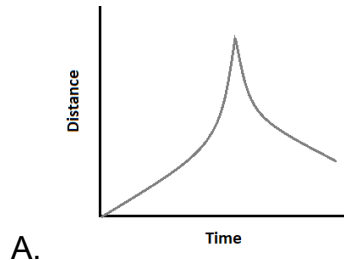
- A. Parasitism
- B. Mutualism
- C. Commensalism
- D. Predation



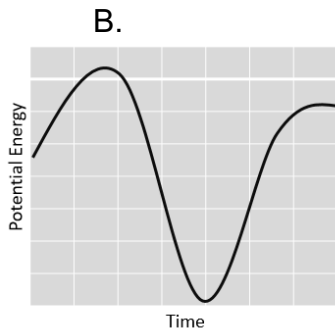
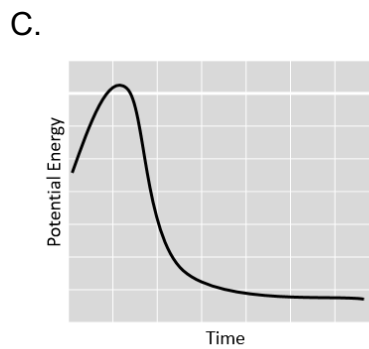
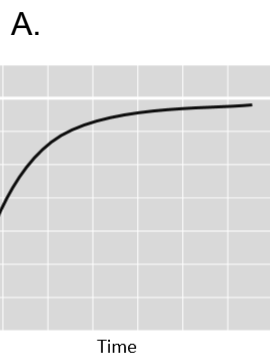
representation to relationship

46. Which of the following units is the largest?
- A. Petameter
 - B. Megameter
 - C. Gigameter
 - D. Terameter
47. A model of a planet drawn on notebook paper is not able to accurately show:
- A. How the planet looks in three dimensions
 - B. The scale of the planet
 - C. Location of satellites orbiting the planet
 - D. All of these
48. Which of the following is not equal to 1000 mL?
- A. 1 L
 - B. 100 cL
 - C. 1 cm³
 - D. 1 dm³

49. A student runs two laps on a track. Each lap is .25 km. It takes two minutes to run one complete lap and then the person sits for five minutes to rest before running the second lap in two minutes and 10 seconds. Which of the following graphs best illustrates this motion?



50. Which graph best illustrates a reaction in which energy is released?



**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-2022 SCIENCE
SPRING TEST**

Answer Key

| | | |
|------|------|------|
| 1. D | 18.A | 35.B |
| 2. B | 19.D | 36.C |
| 3. D | 20.C | 37.A |
| 4. A | 21.A | 38.C |
| 5. C | 22.C | 39.D |
| 6. D | 23.A | 40.A |
| 7. B | 24.B | 41.C |
| 8. A | 25.A | 42.A |
| 9. B | 26.D | 43.B |
| 10.D | 27.C | 44.D |
| 11.A | 28.B | 45.C |
| 12.B | 29.C | 46.A |
| 13.D | 30.C | 47.D |
| 14.B | 31.D | 48.C |
| 15.D | 32.B | 49.D |
| 16.B | 33.D | 50.C |
| 17.C | 34.B | |

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ Initials _____

_____ Initials _____

Papers contending to place:

_____ Initials _____



**University Interscholastic League
A+ Social Studies Contest • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 5 6 7 8

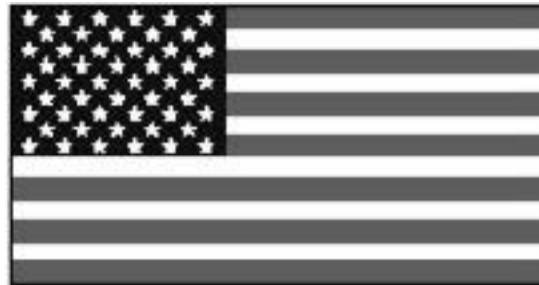
- | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|
| 1. | A | B | C | D | 21. | A | B | C | D |
| 2. | A | B | C | D | 22. | A | B | C | D |
| 3. | A | B | C | D | 23. | A | B | C | D |
| 4. | A | B | C | D | 24. | A | B | C | D |
| 5. | A | B | C | D | 25. | A | B | C | D |
| 6. | A | B | C | D | 26. | A | B | C | D |
| 7. | A | B | C | D | 27. | A | B | C | D |
| 8. | A | B | C | D | 28. | A | B | C | D |
| 9. | A | B | C | D | 29. | A | B | C | D |
| 10. | A | B | C | D | 30. | A | B | C | D |
| 11. | A | B | C | D | 31. | A | B | C | D |
| 12. | A | B | C | D | 32. | A | B | C | D |
| 13. | A | B | C | D | 33. | A | B | C | D |
| 14. | A | B | C | D | 34. | A | B | C | D |
| 15. | A | B | C | D | 35. | A | B | C | D |
| 16. | A | B | C | D | 36. | A | B | C | D |
| 17. | A | B | C | D | 37. | A | B | C | D |
| 18. | A | B | C | D | 38. | A | B | C | D |
| 19. | A | B | C | D | 39. | A | B | C | D |
| 20. | A | B | C | D | 40. | A | B | C | D |

INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 5 & 6**

?

- North

- Urban way of life

**- Most lived on farms,
some worked in factories
and lived in large towns**

- Wanted higher tariffs

- South

- Rural way of life

**- Most lived on farms
and in small towns**

- Wanted lower tariffs

1. What title best completes the chart?
 - a. Progressivism
 - b. Sectionalism
 - c. Isolationism
 - d. Federalism

2. How did Southern slave owners defend slavery?
 - a. They had the same voting rights as other workers
 - b. Were provided benefits such as insurance
 - c. Believed it was wrong for one human being to own another
 - d. They argued that slaves were better off than Northern factory workers

3. When did Congress pass the first Reconstruction Act?
 - a. 1867
 - b. 1870
 - c. 1865
 - d. 1888

4. Who was President of the United States during Reconstruction?
 - a. Jefferson Davis
 - b. James Buchanan
 - c. Andrew Johnson
 - d. Ulysses S. Grant

5. What early battle of the Civil War occurred at a small stream on July 21, 1861 while Federal troops were on their way to invade Richmond, Virginia?
 - a. Savannah
 - b. New Orleans
 - c. Atlanta
 - d. First Battle of Bull Run

6. How did the blockade of Vicksburg cause the Confederates to surrender?
 - a. They could not get supplies through and people faced starvation
 - b. Pushed Union forces back and missed an opportunity to pursue them
 - c. Used a method of total war to destroy not just the opposing army but the people's will to fight
 - d. Reinforcements arrived and turned the tide

7. What new technology allowed families of Civil War soldiers to see the horrors of war?

- a. Drawings
- b. Television
- c. Photography
- d. Light bulb

- **Opposed the spread of slavery**
- **President of the United States during the Civil War**
- **Issued the Emancipation Proclamation**

8. All of the above statements describe which of the following individuals?

- a. John Quincy Adams
- b. Abraham Lincoln
- c. Andrew Jackson
- d. Herbert Hoover

9. _____ cared for soldiers during the Civil War and later organized the American Association of the Red Cross.

- a. Clara Barton
- b. Belle Boyd
- c. Francis Clalin
- d. Harriet Tubman

10. By the early 1900s, what new invention was creating a growing demand for products made from oil?

- a. Textiles
- b. Automobile
- c. Barbed wire
- d. Elevators

11. Why did people move to the cities from small towns and farms all over the United States?

- a. Fewer homes
- b. More land to build farms
- c. Better transportation routes
- d. Busy factories and many jobs

Farmers in the South were having economic problems. The supply of food was increasing rapidly, but consumer demand was growing slowly. To attract more consumers, farmers had to drop the price of their products.

12. What were these farmers experiencing?

- a. Favorable balance of trade
- b. Due process of law
- c. Law of supply and demand
- d. Doctrine of Nullification

13. As a young person, how can you be a good citizen?

- a. Vote
- b. Serve on a jury
- c. Write to your elected officials about issues that concern you
- d. Serve in the military

14. What type of responsibilities are those that involve your government and community?

- a. Civil
- b. Personal
- c. Educational
- d. Religious

15. Who is this political leader?

- a. Elizabeth Warren
- b. Elena Kagan
- c. Shea O'Leary
- d. Kamala Harris



16. _____ is the current Secretary of Defense.

- a. Tom Vilsack
- b. Lloyd Austin
- c. Marty Walsh
- d. Xavier Becerra

"in order to form a permanent federal government, establish justice, insure domestic tranquility, and secure the blessings of liberty to ourselves and our posterity"

17. Which document contains this quote?

- a. Constitution of the Confederate States
- b. Declaration of Independence
- c. Constitution of the United States
- d. Mayflower Compact

18. According to the Confederate Constitution, how many days does the President have to return a bill before it becomes law?

- a. 30 days
- b. 10 days
- c. 60 days
- d. 90 days

19. When did Lincoln deliver the Gettysburg Address?

- a. July 21, 1861
- b. April 25, 1862
- c. September 17, 1862
- d. November 19, 1863

20. According to the Gettysburg Address, what task lay ahead of the nation?

- a. Improve the economy
- b. Build a transportation system
- c. Preservation of the nation and its government
- d. Seek foreign alliances

?

Arkansas Texas Mississippi Alabama Florida Georgia

21. Which title finishes the chart about the Emancipation Proclamation?
- Leading coal producing states
 - Breadbasket states
 - Areas in rebellion against the United States
 - Major shipping states
22. Who was serving as the United States Secretary of State at the issuance of the Emancipation Proclamation?
- William Seward
 - John H. Reagan
 - Alexander Hamilton
 - James Madison
23. When was the Fifteenth Amendment to the United States Constitution ratified?
- 1860
 - 1865
 - 1880
 - 1870
24. Which Amendment to the United States Constitution laid the groundwork for many of the civil rights laws that enhanced equality for all Americans?
- 2nd
 - 14th
 - 21st
 - 26th
25. Why was the region that included Syria and Iraq called the “Fertile Crescent”?
- Area of rich farmland
 - Harsh weather
 - Lack of water
 - Abundant timber
26. Which Asian country is home to 8 of the 10 highest mountains in the world attracting thousands of climbers and hikers each year, creating a growing tourist industry?
- Libya
 - Spain
 - Nepal
 - Argentina
27. Singapore has one of the world’s busiest harbors. It is a free-port. What is a free-port?
- City and its surrounding countryside
 - A place where goods can be loaded or unloaded, stored and shipped again without payment of import taxes
 - Process of removing salt to make seawater drinkable
 - Type of environment in which a particular animal species lives
28. Because no part of it is more than 85 miles from the sea, which nation still has one of the largest shipping fleets in the world?
- Portugal
 - El Salvador
 - Chad
 - Greece

- **Geothermal power**
- **Solar power**
- **Wind power**
- **Hydropower**

29. These are examples of what type of natural resources?
- | | |
|-----------------|-----------------|
| a. Nonrenewable | c. Human |
| b. Renewable | d. Conservation |
30. Which West Indies country mines bauxite, a mineral used to make aluminum?
- | | |
|------------|-------------|
| a. Jamaica | c. Denmark |
| b. Algeria | d. Mongolia |
31. Who is an entrepreneur?
- a. Young worker who learned a trade or skill from a master teacher
 - b. Official of the Christian Church
 - c. A person who organizes and operates a business, taking on greater than normal financial risks in order to do so
 - d. Person who travels from place to place when extra help is needed to plant or harvest crops
32. Why is Luxembourg so attractive to foreign countries?
- a. Numerous water resources
 - b. Harsh climate
 - c. Rocky soil
 - d. Most of its people are multilingual
33. What is one of the ways that people today have learned about other groups of people?
- | | |
|--------------|-----------------|
| a. Telegraph | c. Stagecoaches |
| b. Internet | d. Steamboats |
34. Which United States neighbor allows citizens to travel freely between them, which is symbolic of the free trade between these nations?
- | | |
|------------------|------------|
| a. Peru | c. Algeria |
| b. Great Britain | d. Canada |
35. How did the Civil War affect the lives of Texans who stayed at home?
- a. Kept farms and businesses running
 - b. Trained troops
 - c. Mined gold
 - d. Whaling

36. Why was Governor Edmund Davis unpopular among Anglo-American Texans?
- a. Faced many border issues
 - b. Caused a crisis over the sale of the navy
 - c. Spent too much state money and was too eager to help African Americans
 - d. Failed to reduce taxes

Six Flags Over Texas

Spain ? Mexico Republic of Texas Confederate United States

37. Which flag finishes the chart?

- a. Germany
- b. France
- c. Ireland
- d. Poland

38. What historic landmark was the site of a bloody battle that inspired Sam Houston's troops to win the Texas Revolution?

- a. Washington-on-the-Brazos
- b. Victoria
- c. Alamo
- d. Coleto Creek

39. When did Juneteenth originate?

- a. June 19, 1865
- b. June 13, 1863
- c. June 15, 1863
- d. June 18, 1865

40. What date is considered Texas Independence Day?

- a. April 21
- b. May 14
- c. March 11
- d. March 2

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 5 & 6**

Answer Key

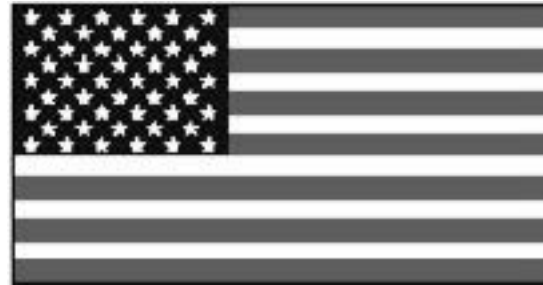
- | | |
|-------|-------|
| 1. B | 21. C |
| 2. D | 22. A |
| 3. A | 23. D |
| 4. C | 24. B |
| 5. D | 25. A |
| 6. A | 26. C |
| 7. C | 27. B |
| 8. B | 28. D |
| 9. A | 29. B |
| 10. B | 30. A |
| 11. D | 31. C |
| 12. C | 32. D |
| 13. C | 33. B |
| 14. A | 34. D |
| 15. D | 35. A |
| 16. B | 36. C |
| 17. A | 37. B |
| 18. B | 38. C |
| 19. D | 39. A |
| 20. C | 40. D |

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 5 & 6

- **States' rights**
- **Slavery**
- **Defending homeland and way of life**

1. Which side stood for these issues during the Civil War?
- | | |
|----------|-------------------|
| a. North | c. Immigrants |
| b. South | d. Factory owners |

?

Draft new constitutions giving African American men the right to vote
Former Confederate leaders could not vote or hold office
Buildings, roads and bridges were repaired
New railroads were built
System of free education was established

2. What title completes the chart?
- | |
|----------------------------------------------------------|
| a. Northern benefits during the Civil War |
| b. Changes in Texas following the Texas Revolution |
| c. Changes in the South during Reconstruction |
| d. Factory advancements during the Industrial Revolution |
3. The Civil War began on April 12, 1861 when Confederates started firing on which federal fort?
- | | |
|-------------------|---------------------|
| a. Fort McHenry | c. Fort Ticonderoga |
| b. Fort Necessity | d. Fort Sumter |
4. What battle was the single bloodiest day of the entire Civil War?
- | | |
|--------------|----------------|
| a. Antietam | c. Atlanta |
| b. Vicksburg | d. New Orleans |
5. Where did Generals Lee and Grant meet to discuss the terms of surrender ending the Civil War?
- | | |
|---------------|---------------------------|
| a. Savannah | c. Appomattox Court House |
| b. Seven Days | d. Petersburg |
6. What new technology did the Confederacy use to overcome the blockade by the Union?
- | | |
|-------------|---------------|
| a. Grenades | c. Airplanes |
| b. Cruisers | d. Submarines |
7. Who was the Civil War photographer that allowed families of soldiers to see the horrors of war?
- | | |
|-------------------|----------------------|
| a. Mathew Brady | c. Clara Barton |
| b. Harriet Tubman | d. Charles Goodnight |

Robert E. Lee

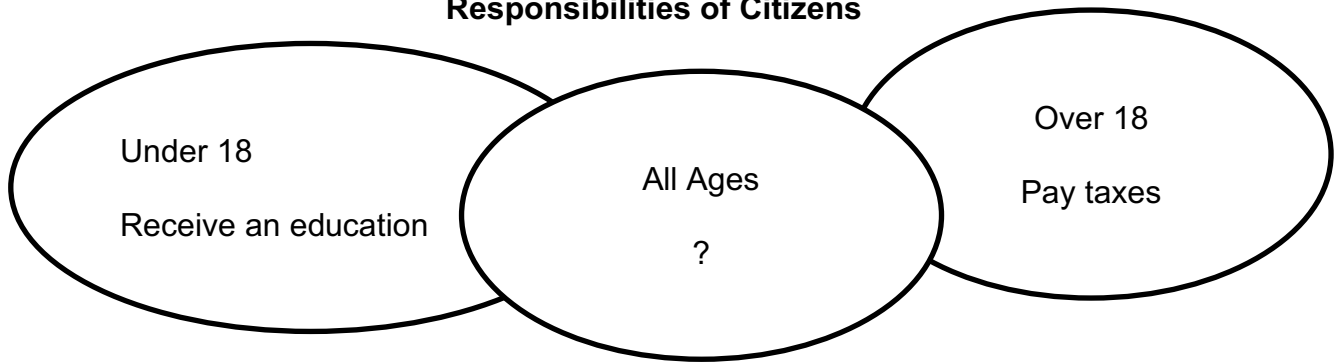
Fought in the Mexican War

?

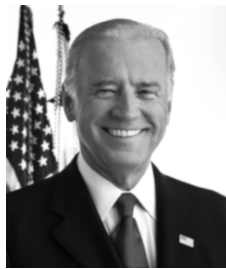
Became the commander of the Confederate army

8. Which statement finishes the chart?
- a. Served as United States Senator from Mississippi
 - b. Turned down Lincoln's offer to command the Union army
 - c. Purchased the Louisiana Territory
 - d. Organized the American Association of the Red Cross
9. Who was elected to the Senate seat that Jefferson Davis held before the Civil War?
- a. Thaddeus Stevens
 - b. Thomas Waterman Wood
 - c. John Mosley
 - d. Hiram Revels
10. What was invented in order to cut through the tough prairie sod?
- a. Combine
 - b. Tractor
 - c. Steel plow
 - d. Hay bailer
11. Who created an invention that enabled people to communicate with others without making personal visits or waiting for the mail to be delivered?
- a. Lewis Latimer
 - b. Alexander Graham Bell
 - c. Thomas Edison
 - d. Cornelius Vanderbilt
- 1- Prices are high. 2- Producers want to increase the supply. 3- More goods push price down. 4- Demand increases. 5- Producer increases supply. 6- Price decreases again. 7- Producer supplies less. 8- Prices increase and demand falls.**
12. What economic term is being described in the chart?
- a. Law of supply and demand
 - b. Favorable balance of trade
 - c. Due process of law
 - d. Open Door Policy
13. Which cash crop was grown on large plantations in the South?
- a. Wheat
 - b. Cotton
 - c. Corn
 - d. Milo

Responsibilities of Citizens



14. What responsibility completes the chart?
- Obey rules and laws
 - Serve on a jury
 - Vote
 - Serve in military



15. Who is the political leader in the picture?
- John Roberts
 - Mitch McConnell
 - Joe Biden
 - Greg Abbott
16. _____ serves as the current Attorney General of the United States.
- Ken Paxton
 - Bob Hall
 - Ron Klain
 - Merrick Garland

“The privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion or invasion the public safety may require it.” United States Constitution and Confederate Constitution

17. What is a writ of habeas corpus?
- A law that condemns a person without a trial in court
 - A legal order that protects people from being held in prison or jail without formal charges of a crime
 - A law that would make an act a criminal offense after it was committed
 - A way to give full citizenship to a person of foreign birth
18. How was the term of office different for the President of the Confederacy than the United States President?
- Four years and not elected more than once
 - Two years and not re-eligible
 - Six years and not re-eligible
 - One year and not elected more than twice

19. Why did Abraham Lincoln give an address in Gettysburg?
- a. Battle victory celebration
 - b. Political rally
 - c. July 4 celebration
 - d. Dedicate a cemetery
20. Where was the Gettysburg Address delivered?
- a. Pennsylvania
 - b. Georgia
 - c. Texas
 - d. Mississippi
21. When was the Emancipation Proclamation issued?
- a. September 22, 1862
 - b. April 9, 1865
 - c. April 12, 1861
 - d. November 19, 1863
22. Who issued the Emancipation Proclamation?
- a. Ulysses S. Grant
 - b. Rutherford B. Hayes
 - c. James Buchanan
 - d. Abraham Lincoln



23. Which Amendment to the United States Constitution laid the groundwork for the many civil rights laws that enhanced equality for all Americans?
- a. 15th
 - b. 13th
 - c. 14th
 - d. 20th
24. When was the Thirteenth Amendment to the United States Constitution ratified?
- a. 1870
 - b. 1865
 - c. 1880
 - d. 1860
- **Physical characteristics**
 - **Human systems**
 - **People and places**
 - **Regions**
25. Who uses these elements to study where it is best for a company to build its facilities?
- a. Economists
 - b. Religious leaders
 - c. Educators
 - d. Geographers
26. Which country holds about 25 percent of the world's known oil supply?
- a. Poland
 - b. Costa Rica
 - c. Saudi Arabia
 - d. India
27. Where did inventors and scientists spark the Industrial Revolution and today is still a major industrial and trading country?
- a. Brazil
 - b. United Kingdom
 - c. France
 - d. Bhutan

28. What is a renewable resource?
- Natural resource that is unlimited or that is naturally replenished rather quickly
 - Natural substance that is not replenished with the speed at which it is consumed
 - Plant or animal under the threat of completely dying out
 - Reusing materials instead of throwing them away
29. Which American nation has soil that allows it to grow coffee, cotton, vegetables, fruit and tobacco for export?
- Namibia
 - Pakistan
 - Mexico
 - Sweden
30. Eager to learn about new business methods, China has asked other countries to invest in their businesses. What is the best definition for the word invest?
- Change an economy to rely more on manufacturing and less on farming
 - Process by which grasslands change to desert
 - To move from one place to another
 - To put money into a business
31. Which region has the largest supply of minerals in Russia, including iron ore, uranium, gold, diamonds and coal?
- Siberia
 - Ural
 - Volga
 - Moscow
32. Why are young men moving to cities in Nigeria?
- To grow crops such as yams
 - To find work
 - For housing
 - In search of gold
33. Where do most young people first meet people from other ethnic groups?
- Mall
 - Church
 - Schools
 - Restaurants
34. What has allowed the United States to become a world leader in satellites, computers, health care and many more fields?
- Rocky farmland
 - Few natural resources
 - Harsh climate
 - Quality schools
35. Where did most Civil War battles in Texas take place?
- Along the San Jacinto River
 - Near ports
 - In the Panhandle
 - Along the border with the New Mexico Territory
36. In 1865, what Union general rode through Texas to announce that all enslaved Texans were free under United States law?
- Gordon Granger
 - Richard Coke
 - John Bell Hood
 - Stonewall Jackson

37. _____ is the State Flower of Texas.
- a. Bluebonnet
 - b. Yellow rose
 - c. Daisy
 - d. Carnation



38. What historical landmark honors the heroes of the Texas Revolution and its museum has displays on the history of Texas, Mexico and the Southwest dating back to the days before Columbus arrived in the Americas?
- a. Panhandle-Plains Historical Museum
 - b. San Jacinto Monument
 - c. Blanton Museum
 - d. Ney Museum
39. Why is March 2 considered Texas Independence Day?
- a. Texas defeated Mexican troops at San Jacinto
 - b. Santa Anna surrendered to Texas forces
 - c. Texas leaders wrote a Declaration of Independence from Mexico and signed it on that date
 - d. Texas troops were attacked at Goliad
40. What date is Juneteenth?
- a. June 13
 - b. June 18
 - c. June 15
 - d. June 19

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 5 & 6**

Answer Key

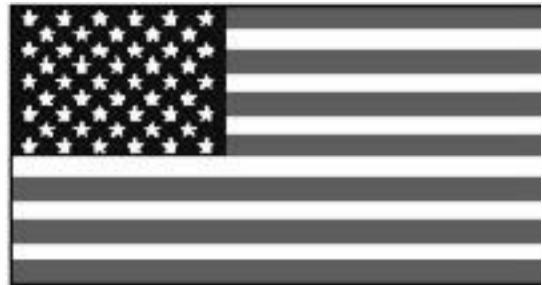
- | | |
|-------|-------|
| 1. B | 21. A |
| 2. C | 22. D |
| 3. D | 23. C |
| 4. A | 24. B |
| 5. C | 25. D |
| 6. D | 26. C |
| 7. A | 27. B |
| 8. B | 28. A |
| 9. D | 29. C |
| 10. C | 30. D |
| 11. B | 31. A |
| 12. A | 32. B |
| 13. B | 33. C |
| 14. A | 34. D |
| 15. C | 35. B |
| 16. D | 36. A |
| 17. B | 37. A |
| 18. C | 38. B |
| 19. D | 39. C |
| 20. A | 40. D |

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

VERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
SPRING TEST — GRADES 5 & 6

1. How did sectionalism threaten the United States?
 - a. Industry was trying to move forward too fast bringing corruption to society
 - b. Some thought a large military force was needed
 - c. Way of life in one section was threatening the way of life in the other sections
 - d. Spiritual world was more important than the physical world and that people can find truth within themselves through feeling and intuition

2. Who was the Southern Senator that was a leading voice for state's rights?
 - a. Henry Clay
 - b. John C. Calhoun
 - c. Daniel Webster
 - d. Stephen Douglas

3. How many military districts was the South divided into during Reconstruction?
 - a. 5
 - b. 10
 - c. 15
 - d. 20

4. What description of the Fifteenth Amendment replaces the question mark?

Reconstruction Amendments

Thirteen **December, 1865** **Declares slavery illegal**

Fourteen **July, 1868** **Declares former slaves to be citizens and guarantees equal protection of the law to all**

Fifteen **February, 1870** **?**

- a. Right of the people to keep and bear arms
 - b. Freedom of speech
 - c. Abolition of poll taxes
 - d. Prevents the denial of the right to vote based on race or previous condition of servitude
-
5. According to the Anaconda Plan, which Southern city did Union troops need to capture to gain control of the Mississippi River in order to weaken the Confederacy?
 - a. Atlanta, Georgia
 - b. Vicksburg, Mississippi
 - c. New Orleans, Louisiana
 - d. Richmond, Virginia

 6. What new technology was used to sink several wooden Union ships?
 - a. Ironclad ships
 - b. Jet planes
 - c. Grenades
 - d. Muskets

7. Which historical figure is known for these achievements?

- **Served as United States Senator from Mississippi**
- **President of the Confederacy during the Civil War**
- **Wrote a book about the Confederate government**

- a. John H. Reagan c. William Carney
b. Thomas Waterman Wood d. Jefferson Davis

8. Which Virginia property owner known for these events replaces the question mark?

?

First major battle of the Civil War was fought on his property in Manassas, Virginia

Reluctantly offered his home for a location for a meeting between Lee and Grant at the end of the Civil War

- a. Charles Marshall c. Wilmer McLean
b. Joseph Hooker d. George Pickett

9. Who was the inventor from Indiana that designed a new kind of steel plow that could cut through the tough prairie sod?

- a. Percy Ebbutt c. Lewis Latimer
b. Nat Love d. James Oliver

10. What new industry led to useful products such as kerosene?

- a. Oil c. Coal
b. Gold d. Timber

11. How is the economic term **demand** defined?

- a. Public funds set aside for a specific purpose
b. A refusal to buy certain goods
c. The willingness and ability of consumers to spend money for goods and services
d. A way of life shared by people with similar arts, beliefs and customs

12. Why did the South feel slavery was needed in the plantation system?

- a. Provide an education for the children
b. Labor source
c. To provide good transportation
d. Serve as law enforcement

13. These are examples of what type of a citizen's responsibilities?

- **Taking care of yourself**
- **Helping your family**
- **Knowing right from wrong**
- **Behaving in a respectful way**

- a. Personal
b. Educational
c. Civic
d. Religious

14. Who is the first woman to serve as the Vice President of the United States?

- a. Elizabeth Warren
b. Shea O'Leary
c. Elena Kagan
d. Kamala Harris

15. _____ is the current Secretary of Transportation.

- a. Dr. Michael Cardona
b. Pete Buttigieg
c. Marcia Fudge
d. Michael Regan



16. Who is the government official in the picture?

- a. Ted Cruz
b. Mitch McConnell
c. John Roberts
d. Greg Abbott

17. Which Amendment did Congress require former Confederate states to ratify as a condition of regaining federal representation?

- a. 13th
b. 20th
c. 16th
d. 26th

18. What does the term **naturalized** mean?

“All persons born or naturalized in the United States”- 14th Amendment

- a. A native-born American who wanted to eliminate foreign influence
b. A way to give full citizenship to a person born in another country
c. A country that agrees to help another country achieve a common goal
d. A journalist who exposed corruption in American society

19. How many witnesses did both the United States and the Confederate Constitutions require to testify to the overt act of treason?

- a. One
- b. Six
- c. Four
- d. Two

20. No _____ shall ever be required as a qualification to any office or public trust under the Confederate or the United States Constitutions.

- a. Proof of financial stability
- b. Loyalty oath
- c. Religious test
- d. Health exam

21. These states were members of what group?

?

South Carolina-Georgia-Florida-Alabama-Mississippi-Louisiana-Texas

- a. South American countries
- b. Confederate states
- c. English colonies
- d. Dutch ports

22. Who delivered the Gettysburg Address?

- a. Edward Everett
- b. Colonel Alexander Bliss
- c. Abraham Lincoln
- d. George Bancroft

23. What power of the presidency gave Abraham Lincoln the authority to issue the Emancipation Proclamation?

- a. Legislative leader
- b. Head of a political party
- c. Chief Justice
- d. Commander-in-chief

24. When was the Emancipation Proclamation to go into effect?

- a. January 1, 1863
- b. March 2, 1863
- c. November 19, 1863
- d. January 7, 1865

25. What is the main force driving globalization today?

- a. Lack of leadership
- b. Need for capital
- c. Search for cheap labor
- d. Decreased transportation hubs

26. Which country is a leading producer of phosphates in Africa?

- a. Afghanistan
- b. Morocco
- c. Portugal
- d. Ecuador

27. What area in Germany that developed around rich deposits of coal and iron ore ranks as one of the world's most important industrial centers?

- a. Ruhr
- b. Montenegro
- c. Bavaria
- d. Siberia

28. Where are the largest areas of remaining rain forest in the world?
- a. Congo
 - b. China
 - c. Netherlands
 - d. Brazil

29. These are examples of what type of natural resources?

- **Crude oil**
- **Coal**
- **Uranium**
- **Natural gas**

- a. Nonrenewable
- b. Human
- c. Renewable
- d. Conservation

30. Which nation uses geothermal energy, or heat produced by natural underground sources, to heat most of their homes, buildings and swimming pools?

- a. Chad
- b. Iceland
- c. Crete
- d. Chile

31. What economic activity replaces the question mark?

Resources of Indonesia

Large resources of oil and natural gas ?

Dense rain forces provide teak and other woods

- a. Is an archipelago
- b. Wealth comes largely from high-tech companies
- c. Second largest food exporter in the world
- d. Mines yield tin, silver, nickel and gold

32 Kenya has a developing economy based on a free enterprise system. What is a free enterprise system?

- a. Economic system which advocated the elimination of private property
- b. Economic system in which many businesses are owned and run by the government
- c. Economic system that operates on free competition, in which people start and own businesses, with limited government intervention
- d. System in which a lord gave land to a noble to work, govern and defend, in return for the noble's loyalty

33. Which American country is known for fertile farmland, rich natural resources and skilled workers?

- a. France
- b. Canada
- c. Liberia
- d. Korea

34. How have Europeans begun to realize that problems like water pollution and growing greenhouse gas can be overcome?
- a. Increased contact among peoples
 - b. Decreased use of nuclear fuels
 - c. Fewer water safety laws
 - d. Increased use of lead pipes

35. Who primarily performed these duties during the Civil War in Texas?

*** Made uniforms, tents, blankets and bandages**

*** Worked in hospitals**

- a. College professors
 - b. Business owners
 - c. Women
 - d. Salvation Army
36. What did the United States government set up in Texas to help African Americans find jobs and homes and opened up schools?
- a. Institute of Texan Culture
 - b. Texas Medical Center
 - c. Mission Control Center
 - d. Freedmen's Bureau
37. _____ is the State Bird of Texas.
- a. Cardinal
 - b. Grackles
 - c. Blue jay
 - d. Mockingbird



38. What historical landmark, founded in 1718, was the site of the Battle of the Alamo?
- a. San Jose y San Miguel de Aguayo
 - b. San Francisco de la Espada
 - c. San Antonio de Valero
 - d. San Juan Capistrano
39. What event that occurred on June 19, 1865 is now celebrated as a federal holiday?
- a. It was announced that all enslaved Texans were free under United States law
 - b. Defeat of Mexican forces at San Jacinto
 - c. Texas became a State in the United States
 - d. Sam Houston is named commander of the Texas forces during the Texas Revolution
40. When was the Texas Declaration of Independence signed?
- a. April 21, 1836
 - b. March 2, 1836
 - c. March 6, 1836
 - d. October 2, 1835

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
SPRING DISTRICT — GRADES 5 & 6**

Answer Key

- | | |
|-------|-------|
| 1. C | 21. B |
| 2. B | 22. C |
| 3. A | 23. D |
| 4. D | 24. A |
| 5. B | 25. C |
| 6. A | 26. B |
| 7. D | 27. A |
| 8. C | 28. D |
| 9. D | 29. A |
| 10. A | 30. B |
| 11. C | 31. D |
| 12. B | 32. C |
| 13. A | 33. B |
| 14. D | 34. A |
| 15. B | 35. C |
| 16. C | 36. D |
| 17. A | 37. D |
| 18. B | 38. C |
| 19. D | 39. A |
| 20. C | 40. B |



Storytelling

EVALUATION SHEET

INSTRUCTIONS

Please review the instructions for evaluating the performances of the storytelling contestants. The following criteria are of equal importance to evaluating contestants. Terminology used is only intended to help the judge identify criteria for determining a winner. Please make your comments using language understandable to the contestant. Students and instructors appreciate constructive narrative comments. Please do not confer with other judges before ranking students. Judges' decisions are an individual responsibility.

Speaker Number _____

Speaker Name _____

Round Prelims

Section _____

Finals

Yes No **Did the contestant communicate effectively with the audience?**

Yes No **Did the contestant command attention?**

Yes No **Did the contestant tell the story with ease?**

Yes No **Did the contestant exhibit enthusiasm?**

Yes No **Did the contestant utilize facial expressions, vocal variety and characterization?**

Yes No **Did the contestant make good eye contact?**

Yes No **Did the contestant use good posture?**

Yes No **Did the contestant speak clearly?**

Yes No **Did the contestant use gestures effectively?**

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:

Judge's signature _____



Storytelling Contest
Invitational 2021-22

“Beach Day”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The narrator loved the beach and was excited to be packing for her week-long trip there.
2. While helping her sister collect seashells along the beach, she noticed a lot of trash. She emptied her shells into her sister's bucket and dumped trash into hers.
3. After her and her sister saved a crab from a plastic bottle, she wished someone could do something about all of the trash on the beach.
4. Although she questioned her ability to help because of her size, she came up with a plan to clean up the trash from the beach. Others joined in to help.
5. The beach patrol thanked them for helping and asked for a picture in hopes to spread the word. When asked what her message would be, she replied, “No matter if you’re big or small, you can always try to make a difference.”



Storytelling Contest

Invitational 2021-22

“Beach Day”

Grades 2 and 3

by Sherri Maret

One of my favorite places to go is the beach. I love the water. I love to swim and ride the waves on my board. I like building sandcastles and collecting shells with my little sister, too. Sometimes we go for the day. I like it best when we can go there for a vacation. If we do that, I can do some fishing, too. Last time we spent a week, I caught a redfish. That has been the biggest, best fish I have ever caught. I love the beach so much that I want to tell you a true story.

My family and I went to the beach last summer.

I was excited to pack up. We were going for a week, so I wanted to make sure I had everything.

Since my sister is younger, I helped her pack the games and toys to take. We also picked out some books we wanted to read. We took two swimsuits so we would never have to put on a wet one.

When we arrived at the house my parents rented, it wasn't too late to go to the beach for a short time. We all scrambled to unpack and put on our suits.

Luckily, the weather was great but a little windy. The waves were perfect for riding. I was so glad my sister could ride her own board by

herself. When she was little, she would always beg me to let her ride with me.

After a while, my sister asked, “Will you help me look for some shells?”

I grabbed my bucket. After we found some shells and walked a while, I saw that there was a lot of trash.

“Let me put my shells in your bucket,” I said to my sister.

I gently emptied the shells from my bucket to hers and dumped some trash into my bucket. It quickly filled up.

“Help me!” My sister called. I ran over to see what the problem was. A crab was inside a plastic bottle and was scurrying to get out. I helped the crab get back into the ocean and carried the plastic bottle and bucket of trash back to our car.

“I wanted to make sure the crab lived happily ever after,” my sister told me.

“Look at all the trash I collected,” I said showing my parents.

“We saved a crab,” my sister chimed in.

“It seems like the trash gets worse every year,” replied my father.

“I wish someone would do something about it,” I told my family.

We packed up and picked up a pizza. While we ate, we talked about the trash.

“So, who is responsible for keeping the beach clean?” asked my mother.

“The beach workers!” exclaimed my sister.

“I think it’s too big of a job for them,” I replied. “I wish I could do something.”

“Maybe you can. Think about it,” my dad told me.

I did think about it. I thought I was just a kid. How could I do something? How could I make a difference? Then I had an idea. The next morning, I told my idea to my family.

“What if we take some big trash bags with us and clean up the beach where we are? If everyone did that, the beach would be cleaner,” I explained.

“That’s a wonderful idea,” said my mother. “I’ll get the box of trash bags under the sink. We can get more at the store, too.” My parents smiled at each other, and I felt good about my idea.

So, my family and I cleaned up our part of the beach. We piled the full bags by our car. I felt really good about what we had done.

A lady with two teenagers walked over and talked to my mom. I saw her give them trash bags, and they picked up trash on their part of the beach. One of them took photos of their trash pile. I could see they felt the same as me. We were both happy about helping.

A few days later, the beach patrol stopped by our car and thanked us for helping. They had noticed that many people had been picking up trash.

“Could we take photos of you with your bags of trash? We thought about putting this out on our social media in the hopes that more people will help keep our beach clean,” the man said.

We were happy to do that and hopefully spread the word.

“So, what would you say is your message?” the man asked me after my mom said it was all my idea.

I said, “No matter if you’re big or small, you can always try to make a difference.”

My little sister said, “Pick up your trash!”



Storytelling Contest
Invitational 2021-22

“Super Timmy”
Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Timmy wondered what it would be like to be a superhero. His dad told him he doesn't need superpowers to make a difference.
2. Timmy's dad took him on a walk to see how they could help others in the neighborhood. Timmy's friend Sam needed help getting his cat Pickles out of an oak tree.
3. Using a ladder, Timmy got Pickles down from the tree.
4. Timmy and his dad were grabbing a snack when they noticed a woman struggling with her groceries. Timmy wanted to help and offered to carry her groceries. She was very appreciative.
5. Timmy's dad took them to get an ice cream. Timmy was happy to help people and wanted to do it again.



Storytelling Contest

Invitational 2021-22

“Super Timmy”

Grades 2 and 3

by Kathryn Gonzales

Timmy stared out the front window of his home and daydreamed about having superpowers.

Suddenly, out of nowhere, his dad came up behind him and yelled “BOO!”

This made Timmy jump from his seat while he yelled, “Don’t scare me like that!”

There was a brief moment of silence- then they both busted out laughing.

“What were you thinking about?” Dad asked.

Timmy looked out of the window just for a second more before replying, “I was just thinking about what it would be like to be a super hero.”

Dad made a confused face before saying, “You don’t need powers to make a difference. Let’s go see how we can help our community today.”

Dad took Timmy by the hand and led him outside to walk the neighborhood to see where they could help.

As they were walking, they heard a loud “Meow Meow Meow” sound coming in the direction they were headed.

Timmy noticed his friend Sam outside looking up into a big oak tree. Sam noticed Timmy and his dad and waved them over.

“I need some help,” Sam says.

“My cat Pickles is stuck in this tree.”

Timmy and his dad looked up and saw the cat sitting scared on a large branch.

Timmy’s dad asked Sam, “Do you know if your mom keeps a ladder in her garage?”

“I think so,” Sam replied.

“Keep an eye on Pickles while we get the ladder,” dad told Timmy.

Sam and Timmy’s dad came back with the ladder a few minutes later and propped it up against the tree.

Timmy said, “I can get the cat down,” and took a deep breath before heading up the ladder while his dad held the bottom securely.

One by one, Timmy stepped higher and higher until he reached Pickles.

Sam yelled out, “it’s okay Pickles. You’ll be down soon,” as Timmy gently picked up Pickles and walked down the ladder.

Timmy handed the cat to Sam and looked at his dad with a big smile.

“Great job!” Dad told Timmy.

Sam thanked them both before heading back into the house.

Timmy and his dad started to continue their walk around the town when Timmy’s dad said “See what you did there? You helped your friend and didn’t need the ability to fly.”

Timmy and his dad headed around the corner to their local shopping area. Dad said, “let’s grab a snack from the store.”

As they made their way to the front of the store, Timmy noticed an older woman struggling to carry all of her shopping bags.

Timmy whispered to his dad, “I think that lady needs some help.”

His dad said, “let’s ask her if she would like some.”

Timmy and his dad walked gently towards the woman, and Timmy's dad nudged him to make the first move.

Timmy put on a friendly smile and asked the woman, "Would you like some help with that?" as he gestured towards her bags.

The kind woman looked at both of them and smiled back saying, "Yes please. I've got more than my arms can carry."

Timmy and his dad both reached out and took hold of most of her shopping bags.

The woman gave out a sigh of relief and said, "Thank you so much. My car is this way" as she pointed and started to lead them in that direction.

Once they made it to the woman's car, she opened the trunk for them, and they placed her bags into the back of her car.

"You've both been a great help, and I can't thank you enough," the woman exclaimed.

Timmy's dad said, "It was all Timmy. I just an extra set of hands."

Timmy said, "We were happy to help," They said goodbye, and the woman got in her car and drove away.

Timmy's dad said, "Let's go get some ice cream. We're right by the place we like."

Timmy and his dad walked into the Ice cream shop and ordered two ice cream cones.

After they sat down to enjoy their treat, Timmy told his dad, "I'm really happy we could help those people today. Can we do it again soon?"

Timmy's dad smiled and said, "Of course we can and even when we're not looking for it- we can help people every day."

Timmy and his dad started their short journey home to tell Mom all they did that day.



Storytelling Contest
Fall/Winter 2021-22

“Martha Gets a Bath”
Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Martha was enjoying her ride to the pet store but soon realized it was bath day.
2. With help from the salesperson, Ms. Jan decides to give Martha an oatmeal bath.
3. Marth tried to jump out of the bath when Ms. Jan told her she has a surprise.
4. Martha gets to pick out a new toy after her bath and even gets a treat from the salesperson.
5. Ms. Jan surprised Marth with a trip to the dog park for being a good dog.



Storytelling Contest

Fall/Winter District 2021-22

“Martha Gets a Bath”

Grades 2 and 3

by Kathryn Gonzales

Martha’s basset hound ears were flapping in the wind as she stuck her head out of the car window. Martha loved getting in the car and going for a ride. Martha had no idea it was bath day.

Ms. Jan, Martha’s owner, was driving the car to the pet store and said, “You’re a stinky dog, and you need a bath”.

Martha looked at Ms. Jan with her sad basset hound eyes and realized what was about to happen.

As they pulled into the pet store parking lot, Martha started to look out the window and wag her tail as she saw people walking around because Martha loved people.

When they walked into the pet store, Martha’s owner started talking to the salesperson about which shampoo to use.

The sales associates told her, “The shampoos I would recommend are Soothing Oatmeal or Hypoallergenic.”

She really liked the Oatmeal last time, so let’s go with that” Ms. Jan said as she took the bottle to the big dog bath area.

“Could I get a stool for Martha?” Ms. Jan asked.

The sales associate said “of course” and set one in front of the tub so Martha could get in.

Once Martha was in the bathtub, Ms. Jan lightly brushed Martha's coat before turning on the water and rinsing her fur. Next, Ms. Jan got the shampoo bottle and put some between her hands and lathered it up.

Ms. Jan massaged the shampoo into Martha's fur while saying, "I have a surprise for you later if you're a good dog."

All of a sudden, Martha tried to leap out of the bathtub, but Ms. Jan caught her before she could escape. When Ms. Jan was done with the shampoo, she then rinsed Martha off.

As Ms. Jan turned to grab a towel from the table next to the bathtub, Martha started to shake off the water out of her fur. Martha looked at Ms. Jan with love in her big eyes because she knew the worst part of the bath was over.

Ms. Jan led Martha out of the tub, down the step stool, and back up onto a drying table.

Ms. Jan got the blow dryer set up, so the hose was close to Martha. When she turned it on, a gust of air blew out onto Martha's fur as Ms. Jan made sure Martha was fully dry.

After one last brushing, Ms. Jan got the nail clippers ready for Martha's manicure. One by one Ms. Jan trimmed and filed Martha's nails. Last-minute Ms. Jan decided to paint Martha's nails pink and used the blow dryer to dry them quicker.

Ms. Jan turned and asked the salesperson for a bandana to put on her freshly groomed dog. The sales associate picked out a beautiful pink bandana for Martha to wear that matched her nails.

As they made their way out of the store, Ms. Jan let Martha sniff around and pick out a new toy. Martha loves stuffed animals, so she chose a hedgehog that squeaks.

Ms. Jan and Martha made their way to the cash register where the sales associate asked, "May I give your dog a treat? She is so cute."

Ms. Jan replied "Of course, she deserves it."

After Ms. Jan paid for everything, they walked back to the car where Martha got buckled in and they headed home.

To Martha's surprised Ms. Jan looked into the back seat where Martha sat, and said, "Surprise! We are going to the park!"

Martha wagged her tail in excitement and gave out an excited howl for Ms. Jan.



Storytelling Contest
Fall/Winter District 2021-22

“How I Found My Best Friend”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The narrator was sad and nervous about moving during the summer.
2. While playing soccer in the backyard at her new house, she found a dog hiding between some logs.
3. Her mother made posters in attempt to find the owners of the lost dog. The narrator was hoping nobody would pay attention to the posters. The dog was the narrator's only friend.
4. After weeks of the dog being unclaimed, she noticed a missing dog poster in the ice cream shop with Scruffy's picture. She eventually told her mother about the poster.
5. The mom called the people who made the missing dog poster who ended up being Mrs. Banks and Frank who eventually came to get their dog Duke. The narrator and Frank became great friends and she was even given one of Duke's puppies. She named her new dog Scruffy.



Storytelling Contest

Fall/Winter District 2021-22

“How I Found My Best Friend”

Grades 2 and 3

by Sherri Maret

When I moved to a new house, I was super sad. I would miss my friends, the school I went to since kindergarten, and my awesome soccer team.

“You’ll make new friends,” my mom told me.

“We’ll check to see if there are any soccer camps,” my dad added.

I was nervous about going to a new school in a couple of months.

We moved during the summer. The first days in our new house were spent unpacking, and then my mom thought we should paint some rooms. I helped too. We picked out a light green for my room. When we finished putting everything away, I got bored.

I set up my soccer goal in the backyard and thought it would be so much fun if I had a friend to play goalie. That’s when I heard a noise.

It was a whining noise. I searched and searched. I finally found where the sound was coming from. We had a storage shed in the corner of the yard. A dog was squeezed in and hiding between some logs stacked next to the shed.

“Where did you come from?” I asked.

I sat and talked softly to him or maybe it was a her. After a while, the dog quit whining. I sang some of my favorite songs from music class.

Slowly the dog inched out from the hiding place and came closer and closer.

“Are you hungry and thirsty?” I asked.

My mom wasn't too happy about having the dog. The dog turned out to be a boy. I named him Scruffy. He had matted hair and was a dirty mess. My mom sent me to ask the neighbor if we could have some dog food. She was a very nice older lady who was happy to help. She had a poodle named Fifi.

After his meal, I washed him outside in a tub, and he cleaned up pretty well. He had a collar but no tag. Mom and I took him to a vet to see if he had a chip. He didn't.

Mom said that the dog may belong to someone and got lost. I hoped to keep him.

Mom took some photos of him, and then we made some posters. The poster stated: Found! Did you lose this dog? It had our phone number on it. We posted them all over our neighborhood. Was it horrible that I hoped no one paid attention to those posters? I felt bad about having those feelings.

Dad was working at his new office, and I was lucky Mom worked from home. We explored our new town. We visited the park and went bike riding and checked out books from the library. I got a book about taking care of dogs. One of my favorite places was an ice cream shop. Each month they made a new flavor.

Days turned into weeks and no one called. My mom and dad said I could keep Scruffy if no one called about him. He slept in my room every night and was my only friend.

When we visited the ice cream shop again, we ate inside. I was enjoying red, white, and blue blast for July when I noticed something. Across the room I saw a missing dog poster on the bulletin board.

It was Scruffy! My dog!

My mom didn't see it. I was so sad, and the ice cream didn't taste good anymore. I was glad when it was time to go. I didn't say anything to my mom, and my stomach felt like I had knots inside.

That night I couldn't sleep. I felt horrible. If I had lost Scruffy, I would have had a lot of nights of not sleeping.

"You two have a great day," my dad called to us as he left for work.

I was having problems eating my cereal, so my mom asked, "Is everything okay?"

Of course it wasn't, so I told her about the poster.

"I know that was hard to tell me because you love Scruffy. Actually, I am going to miss having him around. He has been a good furry friend to you," my mom told me as she gave me a big hug.

After getting the number from the ice cream shop worker, mom made the call. I could hear happy screams from the people who were about to get their dog back.

Scruffy and I played in the back yard until my mother called to us.

"This is Mrs. Banks and her son, Frank," my mom told me. "When they went on vacation, a friend was taking care of their dog. He dug a hole under the backyard fence and escaped. He had been missing ever since."

Frank wasn't paying attention. He was hugging Duke, his dog, and Duke wagged his tail so much his back end looked like it was going to fall off.

"Good boy, Duke! We have been looking all over for you!" Frank said.

While Mrs. Banks and my mom talked, we played with Duke. I found out that Frank played soccer, we would be going to the same school, and we were in the same grade. He seemed like a really nice guy.

Mrs. Banks said we should come by and visit.

We did. That's when I found out Duke was a father. Their other dog, Cleo, had puppies. They said I could have one when they were old enough to be adopted.

So Scruffy, oh, I mean Duke, was the reason I met my new best friend. Frank and I had a lot of fun together. Now I wasn't nervous about going to my new school since I had Frank as my new best friend. I also had a great dog who I named Scruffy.



Storytelling Contest
Spring 2021-22

“It’s a Mystery”
Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Mrs. Green dropped her students off at the cafeteria.
2. After lunch, the kids had to wait outside the classroom while Mrs. Green picked up glass from a broken picture frame.
3. The narrator wanted to help solve the mystery of who broke Mrs. Green’s picture frame. She put together a plan to interview some of the kids in the class like a detective.
4. Based off her interviews, she was able to find a suspect and asked him to help straighten up the library. Afterwards, they went to say bye to Mrs. Green.
5. Mark apologized for breaking the picture and explained how it was an accident. The mystery was solved.



Storytelling Contest

Spring District 2021-22

“It’s a Mystery!”

Grades 2 and 3

by Sherri Maret

I love mysteries. I have been reading all the mysteries in the library. I think I would make a great detective. Guess what? I solved my first mystery at my own school. Here’s what happened. Maybe you would be a good detective too!

Last month we were in class, and it was time to go to lunch. All of us put away our math work and got in line to go to the cafeteria.

Mrs. Green, our teacher, dropped us off at the cafeteria. Some kids went to the line to get a food tray and others who packed a lunch went to our table.

“See you soon,” Mrs. Green called to us before going into the lunchroom for teachers.

I was happy my mother surprised me with all my favorite foods in my lunchbox. I had a ham and cheese sandwich, grapes, some chips, and a chocolate chip cookie. I happily ate my food and was looking forward to recess.

When we returned to our classroom, Mrs. Green seemed sad. She was sweeping the floor and asked us to wait until she finished before going inside.

“What happened?” Rita asked her.

“When I returned from lunch, one of my picture frames was broken. The glass from the frame was scattered on the floor,” Mrs. Green replied.

“Who did it?” I asked.

She shrugged and finished cleaning up the mess. She got us started on our science class. We all quickly forgot about the broken picture. We loved learning about animals, and we were writing a report on our favorite one. I chose the armadillo. Rita chose the polar bear. Jamal chose the crocodile. Others were still deciding and that is when I thought about the broken picture.

Maybe this could be my first mystery? I wondered if I had what it takes to solve one.

When the bell rang for us to go home, I took my time to get my stuff together. I needed to talk to Mrs. Green. Alone. When everyone was gone, I asked her, "Did you find out who broke your picture?"

Mrs. Green shook her head. "I will need to buy a new frame. It's my favorite photo of my mother who was also a teacher. She inspires me every day I see it. I know my students don't see it because it faces me, but I was planning on sharing her story with you soon. She is why I became a teacher."

I nodded and asked, "Was her photo damaged?"

She shook her head. "Luckily, no. I just wonder what happened."

I wondered too. I was going to see if I could find out. I would have to plan how I would go about that. A detective needed a plan.

A couple of days later, I had one. I was going to interview some of the kids in the class. I couldn't let them know I was trying to solve the case.

At lunch I said, "I was really sad that someone broke Mrs. Green's photo frame."

Rita asked, "Did she ever find out what happened?"

I said, "Not that I know of."

Jamal shrugged and said, "Maybe we have a ghost!" Then he laughed.

Mark said, "I saw she got a new frame for the lady."

Rita replied, "I'm glad she got a new frame. That is good."

Lisa said, "Our door is always open, so it could have been anyone."

It could have been anyone, but I think I know who did it. I replayed the evidence in my mind. Maybe you heard the same clue I did?

Here is what I knew and what people said about my case.

1-Mrs. Green said the photo was of her mother, and it faces her so she can be inspired every day. We could all see those frames but because her desk faced the class, none of us really knew who or what was in those frames.

2- Rita asked, "Did she ever find out what happened?"

3-Jamal said, "Maybe we have a ghost!"

4-Mark said, "I saw she got a new frame for the lady."

5- Rita said, "I'm glad she got a new frame. That is good."

6-Lisa said, "Our door is always open, so it could have been anyone."

At the end of school day, I had my plan ready. I asked my suspect to help me straighten our little library.

I thought this could be the person who broke the frame.

"Thanks for your help. Let's go say goodbye to Mrs. Green," I said to the suspect.

As we stood at her desk, I asked, "Are you going to share your story about your mother soon?"

"Next week is her birthday, so I'm going to talk about her then," Mrs. Green said.

"I think I know who broke your frame," I announced.

Mark froze. That's when I knew I was right.

"Do you want to tell her anything, Mark?" I asked.

Mark turned a little red and blurted out an apology. He said it was an accident. When he had returned to get his forgotten lunch card, he had been startled by a loud crash. A custodian had been pushing a big cart full of chairs down the hall and some had fallen off.

“I bumped into your desk, and the frame fell and broke. I felt awful about it. I didn't know what to do, and I left it and went to lunch. I'm sorry I didn't tell you,” Mark admitted.

“It was an accident, but it is nice to know what happened. Go on home Mark, and thank you for telling me,” Mrs. Green said.

When he left, my teacher turned to me and asked how I figured out it was Mark who broke it.

I told her, “When I did some detective work at lunch, I talked about your broken frame. I was surprised Mark knew that the photo was a lady. How would he know that if he hadn't been the one to break it?”

I also went on to tell her I wanted to be a detective and solve mysteries.

“I think you're off to a good start!” she said. “If I have any other mysteries, I'll let you know.”

“So now I'm taking on new cases. Does anyone need a mystery for me to solve?”



Storytelling Contest
Spring District 2021-22

“The Grandparent Adventure”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Nora and Everly were awoken by their grandma and grandpa to see their parents getting ready to leave for the hospital for the birth of their sister. They would be spending the day with their grandparents.
2. After their parents left, Nora and Everly helped grandma and grandpa make breakfast.
3. Grandma suggested that they all spend the day at the beach. They spent time splashing in the water and building sandcastles.
4. Nora started to cry after grandma and grandpa told the girls that they would be meeting their new sister soon. She didn't think she wanted another baby in her house.
5. After seeing her new baby sister, Nora smiled and told her grandpa that she thinks three girls will be better than two.



Storytelling Contest

Spring District 2021-22

“The Grandparent Adventure”

Grades 2 and 3

by Kathryn Gonzales

One day before the baby came, Nora and Everly's Mom and Dad sat them down to tell them that the new baby would be here any day now. A few days later, Nora and Everly woke up to see their grandma and grandpa looking straight at them with their sweet faces.

Everly sleepily asked, “What’s going on?”

Grandpa told them to “Come and look for yourself”.

So, the sisters jumped out of bed and ran to the living room where they saw their parents getting ready to leave.

It was a bit crazy, to say the least. Mom was on the phone with the doctor saying they are on their way to the hospital. Dad was getting the bags together and trying to find the keys to the car. Nora jumped into action and helped dad finish packing while Everly found the keys to the car.

Grandpa and Grandma told Mom and Dad to get to the hospital and they would make a day of it with Nora and Everly. Mom and Dad kissed the girls goodbye before leaving.

After waving goodbye, Grandma turned to the girls and said “Who’s hungry?” Both girls jumped up and called out, “Me!” simultaneously.

Everly said “Can we have toaster waffles?” and Nora said “How about eggs? My favorite!” Grandpa just chuckled and told the girls “We can have both and you can help cook.”

Everly rushed quickly to the freezer and opened it, reaching inside to get the box of waffles out. Nora was right behind her retrieving a carton of eggs from the refrigerator. Grandma and Grandpa looked at each other knowing a mess was about to be made.

After the children made breakfast with assistance from their grandparents, Grandma suggested that they spend the day at the beach. Everly and Nora headed to their bedroom to pick out their swimsuits while Grandma and Grandpa gathered the sunscreen and snacks.

Grandpa walked to the front door and hollered “The beach bus is leaving soon, let’s go!” The girls yelled out “Don’t leave without us! We’re almost ready!”

A few moments later, Grandma and the kids were at the door and ready to go. They all piled into the car and headed to the beach.

As Grandpa was finding the perfect parking spot, Grandma told Everly and Nora “Look out the window. Can you see the water?” The girls turned their heads, stretched their necks to look out of the window and got excited to get to the shore.

When they found a nice spot on the sand, Grandpa started to put up their giant beach umbrella when suddenly a gust of wind blew the umbrella down the beach. Everyone started chasing the umbrella when finally it came to rest on a sand hill.

When they caught up with the umbrella, Everly and Nora burst out laughing and yelled back to their grandparents “We caught it!” The girls used what strength they had to help drag the giant umbrella back to their spot.

While relaxing in the shade of the umbrella Everly said “Let’s go get our feet wet!” Then both girls took off running towards the waves. Nora kicked the edge of the water causing a big splash toward Grandma and Grandpa as they walked up.

“Sandcastle time!” Grandpa shouted as he put down the bag of castle building tools. The kids and grandparents got down onto the sand and started digging and packing sand into the castle molds.

Nora and Everly dumped out their sand packed molds to reveal an impressive castle. Nora and Everly stood up to look at their castle. Then, suddenly Grandma said, “This is the best part” as they all trampled the castle together laughing.

“It was fun while it lasted”, Grandpa said before they walked back to their shady spot under the umbrella. The rest of day went by pretty quickly as they chased the waves, swam in the water and gathered seashells to show their parents.

After gathering everyone and everything back in the car, Grandpa and Grandma told the girls that they’re going to meet their new sister before they go home. Nora started to cry. Grandma looked back and asked “What’s wrong?”

“I am the baby, and I don’t think I want another baby in our house.”

Everly turned to Nora and said, “I was not happy at first when you were born but look at all of the fun we have now.”

Grandma smiled at the girls and said “See, it’s okay to be nervous about change because change can be good.” Grandpa gave Grandma a wink before starting the car and heading out.

The hospital visit was brief, but the girls were happy to see Mom and Dad again. Nora and Everly were given a treat from the nurse before Dad told the girls, “I will be home soon to tuck you in.”

While looking at her new sister, Nora smiled and whispered to Grandma, “I think three girls will be better than two.”

The drive home was quiet as Nora and Everly fell asleep in their seats. Grandma held Grandpa’s hand and said “I enjoyed spending time with the girls” Grandpa replied, “So did I.”