2022-2023

This booklet contains practice tests and rules for
Art (grades 7-8)
Calculator Applications (grades 6-8)
Chess Puzzle (grades 6-8)
Dictionary Skills (grades 7-8)
Editorial Writing (grades 7-8)
Impromptu (grades 7-8)
Listening Skills (grades 7-8)
Maps, Graphs & Charts (grades 7-8)
Mathematics (grades 6-8)
Number Sense (grades 7-8)
Ready Writing (grades 7-8)
Science (now grades 6-8)
Social Studies (grades 7-8)

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

JUNIOR HIGH ACADEMIC STUDY MATERIALS BOOKLET

www.uiltexas.org/aplus

UNIVERSITY INTERSCHOLASTIC LEAGUE

* Updated answer sheets for applicable events are included.

*NOTE: Contestants are required to list only the artist's last name (as it appears on the Official List) for Part A. However, there is **no penalty** if contestants also list the artist's first name. Scoring is based on correctness of the artist's last name and the title of the work.*

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

Write your contestant number in the upper right corner, and circle your grade below.
Circle Grade Level: 4   5   6   7   8

ARTIST	PAINTING
1._____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____
13. _____	_____
14. _____	_____
15. _____	_____

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

INVITATIONAL 2021-2022

A+ ACADEMICS
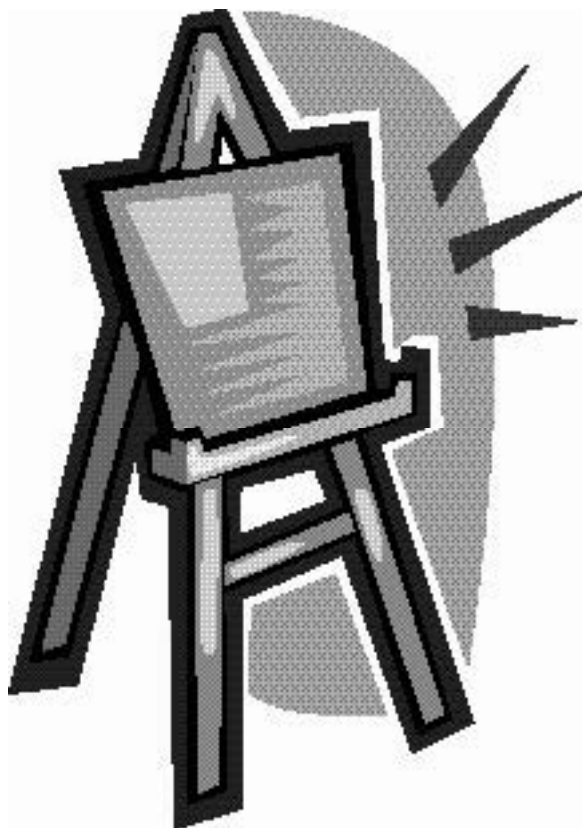
Art Contest
grades 7 & 8

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

2021-2022 Invitational Art Test Part B - Grades 7-8
Art Elements Section

1.   An advantage that oil paints have over tempera is that oils
      a.   dry more slowly.
      b.   can be used in thin glazes or as thick paints.
      c.   have richer colors in dark shades.
      d.   all of the above

2.   Which of these paintings provides the best example of contrasts of light, color, and texture?
      a.   *Still Life with Vegetables*
      b.   *Rainy Midnight*
      c.   *Pink Cyclamen*
      d.   *The Madonna of Humility*

3.   In which of these paintings does the artist use several different kinds of brushstrokes?
      a.   *Dalet Kaf*
      b.   *Oarsmen at Chatou*
      c.   *Still Life with Vegetables*
      d.   *The Harvesters*

4.   Which painting would you expect to have a rougher surface, *Ariadne Abandoned by Theseus* or *Rainy Midnight*?

5.   The foreground of *Haystack Mountain, Vermont* includes all of the following <u>except</u>
      a.   a dead tree.
      b.   a man and dog.
      c.   a plume of smoke.
      d.   slabs of rock.

6.   Which of the following is an example of a group portrait?
      a.   *Queen Henrietta Maria with Sir Jeffrey Hudson*
      b.   *Portrait of an Old Woman*
      c.   *The Quiver Maker*
      d.   *The Harvesters*

7.   In *Pink Cyclamen*, the artist used shades of _____ red and green colors to add liveliness to the image of a potted plant.

8.   The artist used contrasts in *Portrait of Michol (Miguel Pol?)* to
      a.   create a harsh, dramatic mood.
      b.   add variety and interest to the image.
      c.   separate the sitter's figure from the background.
      d.   all of the above

9.   In *Anton Francesco degli Albizzi*, the vertical lines formed by the fur trim on the subject's robe suggest an idea of _____.

True/False

10.   The techniques of using narrowing lines and proportionally smaller objects to show distance are known as atmospheric perspective.

11.   Blue is used in *The Madonna of Humility* to help tie different parts of the painting together.

12.   Diagonal lines through the center of *New York at Night* suggest motion on city streets.

13.   Texture is the most important element in the composition of *Dalet Kaf*.

14.   Pure colors were painted onto a smooth, white undercoating to make them appear brighter and more intense in *Woman with a Parasol - Madame Monet and Her Son*.

15.   The artist used the same kind of brushstrokes throughout the painting of *Mounted Trumpeters of Napoleon's Imperial Guard*.

Art History Section

16.   Angelica Kauffmann learned to paint human figures by
      a.   training with her brother-in-law.
      b.   studying models in art class.
      c.   trial and error.
      d.   copying classical statues.

17.   The artist Jacopo Chimenti is called Empoli from the name of the city where he
      a.   was born.
      b.   was named official painter.
      c.   worked most of his career.
      d.   established an art academy.

18.   _____ was a founding member of the Taos Society of Artists and its first president.

19. Takayama was honored for his painting skill by
    a.   the Japanese government.
    b.   King Louis XIV of France.
    c.   the Catholic Pope.
    d.   the king of Spain.

20. Strong contrasts between light and dark areas are common in works from which art period?

21. Which of these paintings was created during the Modern period of art history?
    a.   *Estuary at Day's End*
    b.   *New York at Night*
    c.   *Old Faithful Geyser, Yellowstone National Park*
    d.   *Still Life with Milk Jug and Fruit*

22. Which of these artists did not die before his 50th birthday?
    a.   Raphael
    b.   Monet
    c.   Gericault
    d.   Louis

23. Sebastiano was born and first studied painting in the city of _____ Italy.

24. Most of the work from the earliest part of Peale's art career was
    a.   large portraits.
    b.   still lifes.
    c.   miniature portraits.
    d.   history paintings.

True/False

25. Shockingly bright colors and twisted forms are typical of the Fauvist style.

26. Hans Memling trained in van der Weyden's workshop.

27. *A Dutch Courtyard* is painted in the Romantic style.

28. Grafton Tyler Brown worked at his family's bank before pursuing a career in art.

29. Frederick the Great of Germany owned several of Pater's paintings.

30. *Three Maries at the Tomb* was painted after *River Landscape*.

2021-2022 Invitational Art Test - Grades 7-8
(Part B)

Answer Key

Elements			History		
1.	d	(20, 21)	16.	d	(38)
2.	a	(41)	17.	a	(27)
3.	b	(45)	18.	Couse	(53)
4.	*Rainy Midnight*	(38, 48)	19.	a	(55)
5.	c	(42)	20.	Baroque	(8, 28)
6.	a	(30)	21.	c	(46)
7.	complementary	(43)	22.	b	(44)
8.	b	(34)	23.	Venice	(26)
9.	strength [or] power	(26)	24.	c	(41)
10.	F	(21)	25.	T	(9)
11.	T	(22)	26.	T	(24)
12.	T	(52)	27.	F	(33)
13.	F	(54)	28.	F	(46)
14.	T	(44)	29.	T	(35)
15.	F	(40)	30.	F	(27, 29)

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.

University Interscholastic League
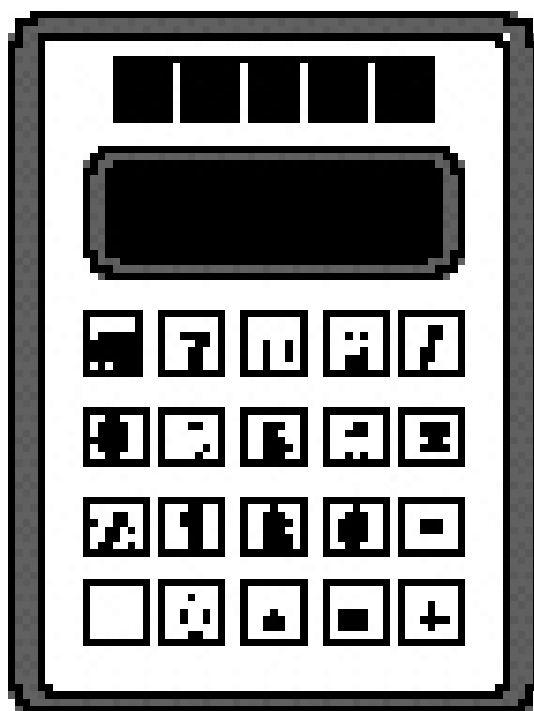
Calculator Applications

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. π + 1.67 + 0.215 + 1.37 + 1.61 -------------------------- 7=_____

22X–8. 3.95 – 3.37 + π – 4.46 – 3.54 ---------------------------- 8=_____

22X–9. 87.5 x 211 x 136 -- 9=_____

22X–10. 56.3 x 389 x 1650 x 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 x 175/582] --------------------------------- 14=_____

22X–15.   373/[410 x 50 x 313] ------------------------------------ 15=_____

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

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

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

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

22X–20.   (0.427)[242/276 x 130/135] – 0.262 --------------------- 20=_____

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

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

22X–23. $\dfrac{(3530 \times 767)/1290}{(1140 \times 0.864) + 788}$ ------------------------------------ 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. $\dfrac{(0.00355 + 0.0146)(70.4 + 50.8)}{(9.14 \times 10^{10})}$ ------------------------ 28=_____

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

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

22X–31. $\dfrac{1}{9.41} + \dfrac{1}{(96.3 - 91.4)}$ ----------------------------------- 31=_____
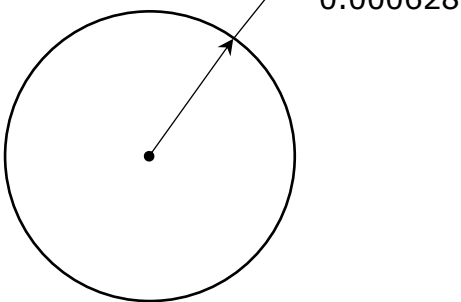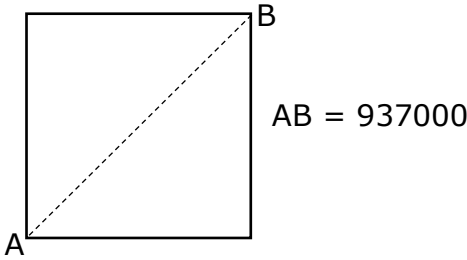
22X–32. $(0.0647)\left[\dfrac{0.004}{(3.46 \times 10^{-11})}\right]$ --------------------------------- 32=_____

22X–33. $\dfrac{1}{34.3} - \dfrac{1}{(41.1 + 39.5)}$ ----------------------------------- 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

22X-37.	22X-38.
CIRCLE	SQUARE
0.000628	B AB = 937000
Circumference = ?	A Square Area = ?
22X-37=_____	22X-38=_____

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

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

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

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

22X–43. $\sqrt{(486/1080) + 0.272 - 0.209}$ --------------------------- 43=_____
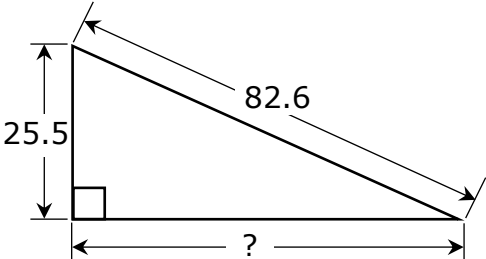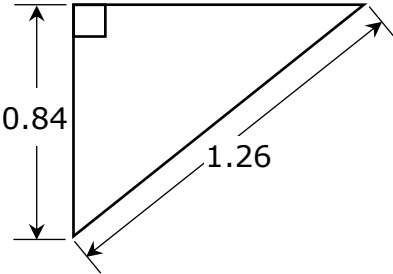
22X–44. $(1/\pi)\sqrt[3]{\dfrac{0.0154 + 0.0141}{0.14 - 0.125}}$ -------------------------------- 44=_____

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

22X-49.
RIGHT TRIANGLE

82.6
25.5
?

22X-49=_____

22X-50.
RIGHT TRIANGLE

0.84
1.26

Triangle Area = ?

22X-50=_____

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

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

22X–53. $\sqrt{\dfrac{1.53\text{x}10^{12}}{(1380)(351)}} + \dfrac{(3.58\text{x}10^5 - 1.41\text{x}10^5)}{(52.6 + 58.9)}$ --------------- 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=_____
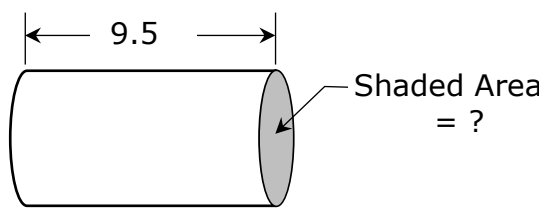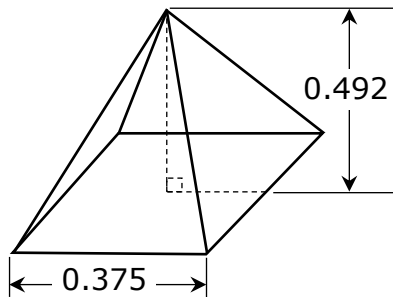
22X–56. $(0.0977)(3.47\text{x}10^8)^{1/4} - [(165)(208)]^{1/4}$ --------------- 56=_____

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

22X–58.   (deg) $\cos(1030°) + (12.6/4.35)$ -------------------------- 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 $P = P_0 + \rho g h$. 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/m^3, and the acceleration due to gravity
is 9.81 m/sec^2, 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

22X-61.
RIGHT CYLINDER

$\longleftarrow$ 9.5 $\longrightarrow$

Shaded Area = ?

Cylinder Volume = 175

22X-61=_____

22X-62.
SQUARE PYRAMID

0.492

$\longleftarrow$ 0.375 $\longrightarrow$

Volume = ?

22X-62=_____

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

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

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

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

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

22X–68. (deg) $\frac{\cos(605°)}{1660 + 447}$ ------------------------------------- 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=_____ ft²

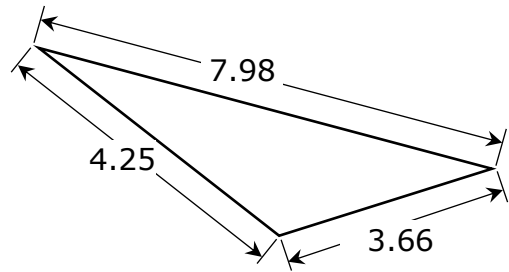22X–72.   The product of two consecutive odd integers is 1023. What is the sum of the two integers? -- 72=_____ integer

22X-73.
REGULAR HEXAGON AND SQUARES
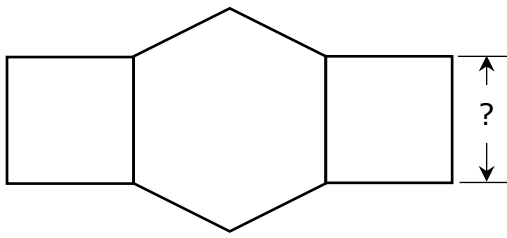
Perimeter = 329

22X-73=_____

22X-74.
SCALENE TRIANGLE

7.98

4.25

3.66

Semi-Perimeter = ?

22X-74=_____

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

22X–76. $\mathrm{Ln}\left[\dfrac{348 + 342 + 88}{92 + 396 - 104}\right]$ ------------------------------------ 76=_____

22X–77. $\mathrm{Log}\sqrt{\dfrac{0.356 - 0.222}{(6.13)(0.715)}}$ ------------------------------------ 77=_____

22X–78. $\dfrac{\mathrm{Log}[17200 + (236)(103)]}{1.88 + \mathrm{Log}[164 + 153]}$ ------------------------------------ 78=_____

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

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

2022 UIL MS Calculator Test A Answer Key

22X-1 = -1570
= -1.57×10^3

22X-2 = -12.0
= -1.20×10^1

22X-3 = 1330
= 1.33×10^3

22X-4 = -2.00
= -2.00×10^0

22X-5 = -1830
= -1.83×10^3

22X-6 = -386
= -3.86×10^2

22X-7 = 8.01
= 8.01×10^0

22X-8 = -4.28
= -4.28×10^0

22X-9 = 2.51×10^6

22X-10 = 1.51×10^9

22X-11 = 57.1
= 5.71×10^1

22X-12 = 10.9
= 1.09×10^1

22X-13 = 91
Integer Answer

22X-14 = -73600
= -7.36×10^4

22X-15 = 5.81×10^{-5}

22X-16 = 7.62
= 7.62×10^0

22X-17 = 1.18
= 1.18×10^0

22X-18 = 77200
= 7.72×10^4

22X-19 = 8.98
= 8.98×10^0

22X-20 = 0.0985
= 9.85×10^{-2}

22X-21 = -6.23
= -6.23×10^0

22X-22 = 0.105
= 1.05×10^{-1}

22X-23 = 1.18
= 1.18×10^0

22X-24 = 4.86
= 4.86×10^0

22X-25 = 36
Integer Answer

22X-26 = 262
= 2.62×10^2

22X-27 = 0.000300
= 3.00×10^{-4}

22X-28 = 2.41×10^{-11}

22X-29 = 7.89×10^{-11}

22X-30 = 268
= 2.68×10^2

22X-31 = 0.310
= 3.10×10^{-1}

22X-32 = 7.48×10^6

22X-33 = 0.0167
= 1.67×10^{-2}

22X-34 = -299
= -2.99×10^2

22X-35 = 1.57
= 1.57×10^0

22X-36 = 107
= 1.07×10^2

22X-37 = 0.00395
= 3.95×10^{-3}

22X-38 = 4.39×10^{11}

2022 UIL MS Calculator Test A Answer Key

22X-39 = 0.823

22X-40 = 1.93x10^{10}

22X-41 = 4.34x10^{10}

22X-42 = 12.9

22X-43 = 0.716

22X-44 = 0.399

22X-45 = 0.324

22X-46 = 74700

22X-47 = 150

22X-48 = 13.1

22X-49 = 78.6

22X-50 = 0.394

22X-51 = 6.12x10^{15}
= 8.23x10^{-1}

22X-52 = 778
= 7.78x10^{2}

22X-53 = 3720
= 3.72x10^{3}

22X-54 = -0.444
= -4.44x10^{-1}

22X-55 = 160
= 1.60x10^{2}

22X-56 = -0.276
= -2.76x10^{-1}

22X-57 = -0.187
= -1.87x10^{-1}

22X-58 = 3.54
= 3.54x10^{0}

22X-59 = 102
= 1.02x10^{2}

22X-60 = 19.7
= 1.97x10^{1}

22X-61 = 18.4
= 1.84x10^{1}

22X-62 = 0.0231
= 2.31x10^{-2}

22X-63 = 7.99x10^{9}

22X-64 = -0.00670
= -6.70x10^{-3}

22X-65 = 6.47x10^{-53}

22X-66 = 0.896
= 8.96x10^{-1}

22X-67 = 24900
= 2.49x10^{4}

22X-68 = -0.000201
= -2.01x10^{-4}

22X-69 = 64.6
= 6.46x10^{1}

22X-70 = 13.4
= 1.34x10^{1}

22X-71 = 165
= 1.65x10^{2}

22X-72 = 64
Integer Answer

22X-73 = 32.9
= 3.29x10^{1}

22X-74 = 7.95
= 7.95x10^{0}

22X-75 = 36700
= 3.67x10^{4}

22X-76 = 0.706
= 7.06x10^{-1}

22X-77 = -0.757
= -7.57x10^{-1}

22X-78 = 1.05
= 1.05x10^{0}

22X-79 = 375000
= 3.75x10^{5}

22X-80 = 1.03
= 1.03x10^{0}

A+ ACADEMICS

University Interscholastic League

Calculator Applications

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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 – π – 2 + 4 --- 4=_____

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

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

22Y–7.   (0.884 – π) + (2.04 – 1.78 – 4.36) ---------------------- 7=_____

22Y–8.   (2.28 + 2.31 – π) – (5.4 + 1.26) ------------------------ 8=_____

22Y–9.   379 x 44.4 x 546 --------------------------------------- 9=_____

22Y–10.   608 x 138 x 59.3 x 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 x 121/73] ------------------------------------- 14=_____

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

22Y–16.   {(–567)(113 – 601)(633)} – 7.48x10^7 ------------------ 16=_____

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

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

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

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

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

22Y–22. $\dfrac{(6870 \text{ x } 2260)/7300}{(1300 \text{ x } 47.8) + 40700}$ --------------------------------- 22=_____

22Y–23. $\left[\dfrac{159 + 344}{814 - 764}\right]\left[\dfrac{358}{776}\right]$ ---------------------------------- 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. $(0.0361)\left[[9.79\text{x}10^{-4}/(0.00451)][0.0431/(0.0575)]\right]$ ---- 28=_____

22Y–29. $\dfrac{(0.0072 - 0.0111)(144 + 247)}{(1.33\text{x}10^{11})}$ --------------------------- 29=_____

22Y–30. $\dfrac{(0.00302 + 0.0216)}{(2.48\text{x}10^{11})}$ --------------------------------------- 30=_____

22Y–31. $(3.26)\left[(3.06\text{x}10^{8}) - (2.14\text{x}10^{8})\right]$ ----------------------- 31=_____

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

22Y–33. $1/(0.231 - 0.146) - 1/(0.0323)$ -------------------------- 33=_____
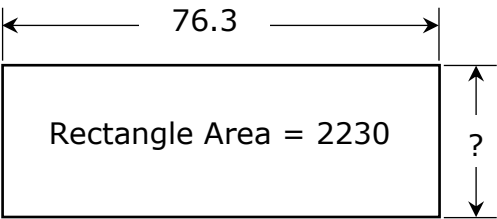
22Y–34. $\dfrac{1}{631} - \dfrac{1}{907} + \dfrac{1}{901}$ ------------------------------------- 34=_____

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
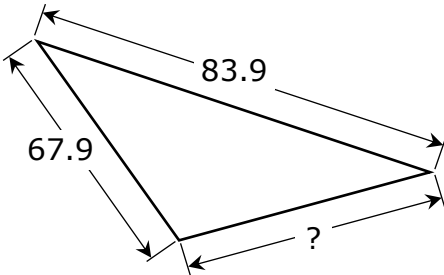
22Y-37. RECTANGLE	22Y-38. SCALENE TRIANGLE
76.3 Rectangle Area = 2230 ?	83.9 67.9 ? Triangle Perimeter = 227
22Y-37=_____	22Y-38=_____

22Y–39. $\left[\dfrac{3700 + (1/(1.51\times10^{-4}))}{(10900/6000) - 0.995}\right]^2$ ---------------------------------- 39=_____

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

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

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

22Y–43. $\sqrt{44.4} + \sqrt{74.9 + 52.3} - (\pi)\sqrt{77.2}$ ------------------------- 43=_____
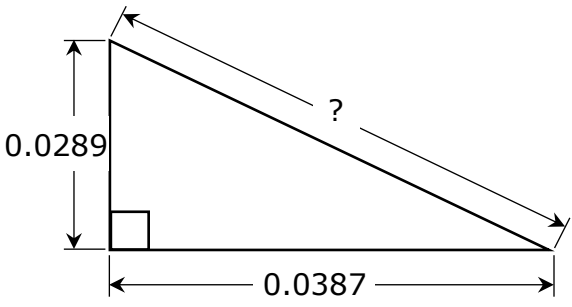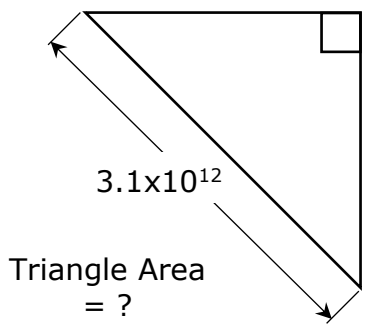
22Y–44. $(1/(6.06\times10^{-4}))(1770 - 1510)^3$ --------------------------- 44=_____

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

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

22Y-49.	22Y-50.
RIGHT TRIANGLE	ISOSCELES RIGHT TRIANGLE

22Y-49.
RIGHT TRIANGLE

?

0.0289

0.0387

22Y-49=_____

22Y-50.
ISOSCELES RIGHT TRIANGLE

3.1×10^{12}

Triangle Area
= ?

22Y-50=_____

22Y–51. $\sqrt{\dfrac{2.39\times10^{-4}}{(1.35)(0.0901)} + \dfrac{(3.79 - 16.4)}{(143 + 61.7)}}$ ---------------------- 51=_____

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

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

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

22Y–55. $(18.1)^2 \sqrt{(348)/(1.66)} - (3910 + 3320)$ ------------------ 55=_____
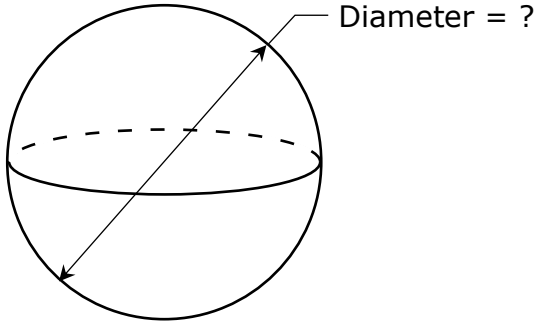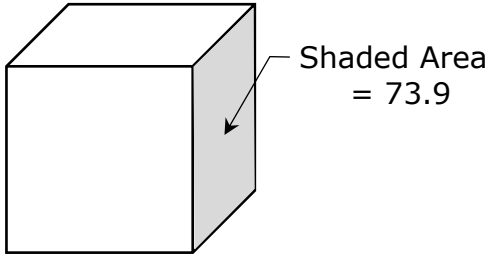
22Y–56. $(263)(1.28\times10^9)^{1/2} - [(2.30\times10^{10})(4.39\times10^{10})]^{1/3}$ ---- 56=_____

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

22Y–58. $\sqrt{\dfrac{1/(10.3 - 8.14)}{(25)(542 + 963)^{-2}}}$ ------------------------------------- 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/sec², 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

22Y-61.
SPHERE

Diameter = ?

Volume = 0.00328

22Y-61=_____

22Y-62.
CUBE

Shaded Area = 73.9

Volume = ?

22Y-62=_____

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

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

22Y–65. (deg) $(1.89 + 0.498)\sin(569°)$ ---------------------------- 65=_____

22Y–66. (deg) $\tan(25.1° - 26.9°) + 0.00962$ --------------------- 66=_____

22Y–67. (deg) $[13.9]\tan(9.13° - 6.4°)$ ----------------------------- 67=_____

22Y–68. (rad) $(24100)\cos(26.4)$ ------------------------------------ 68=_____

22Y–69. (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

4020

6480
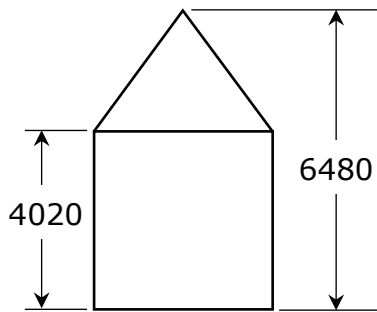
Total Area = ?

22Y-73=_____

22Y-74.
SCALENE TRIANGLE

0.739

0.55

0.408
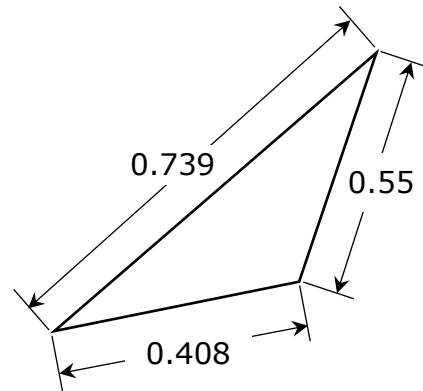
Semi-Perimeter = ?

22Y-74=_____

22Y–75. $\text{Ln}\left[\dfrac{25.8 + 50.7 + 47.8}{231 + 449 - 356}\right]$ ------------------------------------- 75=_____

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

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

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

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

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

2022 UIL MS Calculator Test B Answer Key

22Y-1 = 740
= 7.40×10^2

22Y-2 = -3.00
= -3.00×10^0

22Y-3 = -5.60
= -5.60×10^0

22Y-4 = 9.86
= 9.86×10^0

22Y-5 = -4080
= -4.08×10^3

22Y-6 = 15.5
= 1.55×10^1

22Y-7 = -6.36
= -6.36×10^0

22Y-8 = -5.21
= -5.21×10^0

22Y-9 = 9.19×10^6

22Y-10 = 4.73×10^9

22Y-11 = 15200
= 1.52×10^4

22Y-12 = 852.27
Dollar Answer

22Y-13 = 672
Integer Answer

22Y-14 = 26100
= 2.61×10^4

22Y-15 = -1150
= -1.15×10^3

22Y-16 = 1.00×10^8

22Y-17 = 0.152
= 1.52×10^{-1}

22Y-18 = 0.108
= 1.08×10^{-1}

22Y-19 = 15400
= 1.54×10^4

22Y-20 = 0.000112
= 1.12×10^{-4}

22Y-21 = -1.83
= -1.83×10^0

22Y-22 = 0.0207
= 2.07×10^{-2}

22Y-23 = 4.64
= 4.64×10^0

22Y-24 = 182
Integer Answer

22Y-25 = 23.4
= 2.34×10^1

22Y-26 = 4948.81
Dollar Answer

22Y-27 = -4670
= -4.67×10^3

22Y-28 = 0.00587
= 5.87×10^{-3}

22Y-29 = -1.15×10^{-11}

22Y-30 = 9.93×10^{-14}

22Y-31 = 3.00×10^8

22Y-32 = 18.3
= 1.83×10^1

22Y-33 = -19.2
= -1.92×10^1

22Y-34 = 0.00159
= 1.59×10^{-3}

22Y-35 = 7
Integer Answer

22Y-36 = 11.2
= 1.12×10^1

22Y-37 = 29.2
= 2.92×10^1

22Y-38 = 75.2
= 7.52×10^1

2022 UIL MS Calculator Test B Answer Key

#	Answer		#	Answer		#	Answer		#	Answer
22Y-39	$= 1.58 \times 10^8$		22Y-51	$= -0.0173$ $= -1.73 \times 10^{-2}$		22Y-61	$= 0.184$ $= 1.84 \times 10^{-1}$		22Y-73	$= 2.11 \times 10^7$
22Y-40	$= 189$ $= 1.89 \times 10^2$		22Y-52	$= 3.79 \times 10^6$		22Y-62	$= 635$ $= 6.35 \times 10^2$		22Y-74	$= 0.894$ $= 8.94 \times 10^{-1}$
22Y-41	$= 0.140$ $= 1.40 \times 10^{-1}$		22Y-53	$= 2.68 \times 10^7$		22Y-63	$= 1.71 \times 10^{18}$		22Y-75	$= -0.958$ $= -9.58 \times 10^{-1}$
22Y-42	$= 0.417$ $= 4.17 \times 10^{-1}$		22Y-54	$= 2.18$ $= 2.18 \times 10^0$		22Y-64	$= 51.7$ $= 5.17 \times 10^1$		22Y-76	$= 256$ $= 2.56 \times 10^2$
22Y-43	$= -9.66$ $= -9.66 \times 10^0$		22Y-55	$= -2490$ $= -2.49 \times 10^3$		22Y-65	$= -1.16$ $= -1.16 \times 10^0$		22Y-77	$= 21800$ $= 2.18 \times 10^4$
22Y-44	$= 2.90 \times 10^{10}$		22Y-56	$= -623000$ $= -6.23 \times 10^5$		22Y-66	$= -0.0218$ $= -2.18 \times 10^{-2}$		22Y-78	$= 2.10 \times 10^{11}$
22Y-45	$= 1.06$ $= 1.06 \times 10^0$		22Y-57	$= 4.81$ $= 4.81 \times 10^0$		22Y-67	$= 0.663$ $= 6.63 \times 10^{-1}$		22Y-79	$= 182000$ $= 1.82 \times 10^5$
22Y-46	$= 0.0200$ $= 2.00 \times 10^{-2}$		22Y-58	$= 205$ $= 2.05 \times 10^2$		22Y-68	$= 7200$ $= 7.20 \times 10^3$		22Y-80	$= 1.19$ $= 1.19 \times 10^0$
22Y-47	$= 20.7$ $= 2.07 \times 10^1$		22Y-59	$= 85.0$ $= 8.50 \times 10^1$		22Y-69	$= -0.826$ $= -8.26 \times 10^{-1}$			
22Y-48	$= 5600$ $= 5.60 \times 10^3$		22Y-60	$= 31.7$ $= 3.17 \times 10^{X1}$		22Y-70	$= 1340$ $= 1.34 \times 10^3$			
22Y-49	$= 0.0483$ $= 4.83 \times 10^{-2}$					22Y-71	$= 103$ $= 1.03 \times 10^2$			
22Y-50	$= 2.40 \times 10^{24}$					22Y-72	$= 4.00$ $= 4.00 \times 10^0$			

A+ ACADEMICS

University Interscholastic League
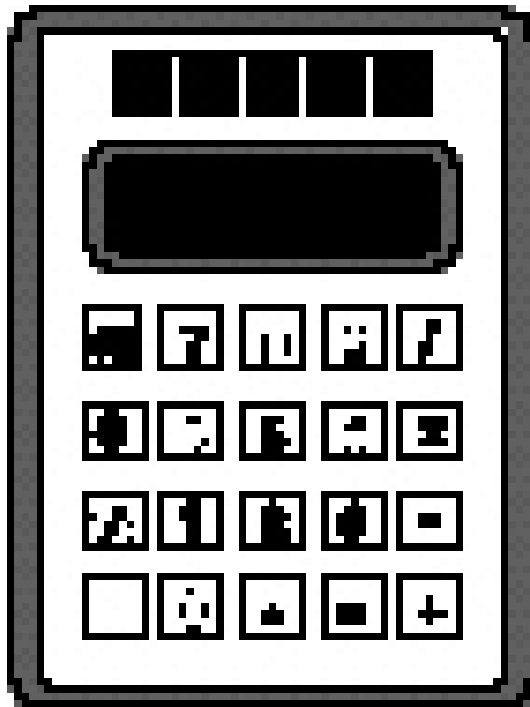
Calculator Applications

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 + π -- 4=_____

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

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

22Z–7. –1.32 + 1.44 – π + 1.56 + 1.15 --------------------------- 7=_____

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

22Z–9. 89.5 x 50.9 x 178 -- 9=_____

22Z–10. 1100 x 176 x 199 x 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 x 525/512] ------------------------------------ 14=_____

22Z–15.   –120/[92 x 27 x 27] ------------------------------------ 15=_____

22Z–16.   {(80)(26 – 111)(119)} – 7.27x10^5 ---------------------- 16=_____

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

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

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

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

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

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

22Z–23. $\left[\dfrac{2360 + 5240}{5600 - 5210}\right]\left[\dfrac{5980}{3280}\right]$ ------------------------------------ 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. $\dfrac{(3.16 - 21.7)(0.03 + 0.00561)}{(3.22 \times 10^{10})}$ ------------------------- 27=_____

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

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

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

22Z–31. $(0.0159)\left[\dfrac{0.0194}{(2.76 \times 10^{8})}\right]$ ------------------------------- 31=_____
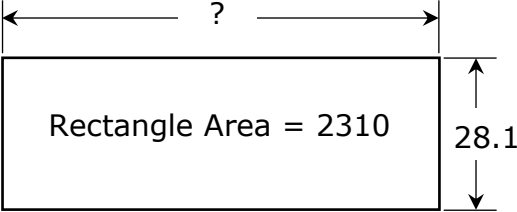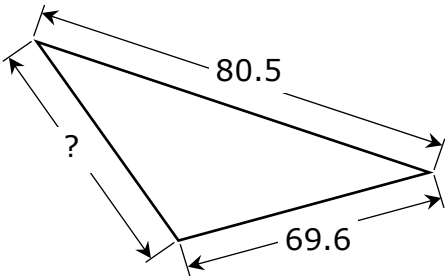
22Z–32. $\dfrac{1}{\pi} + \dfrac{1}{(\pi)(21.1 - 27)}$ --------------------------------------- 32=_____

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

22Z–34. $\left[\dfrac{1/163}{1/276}\right] + [0.251]$ ------------------------------------- 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

22Z-37. RECTANGLE	22Z-38. SCALENE TRIANGLE
? Rectangle Area = 2310 28.1	80.5 ? 69.6 Triangle Perimeter = 222
22Z-37=_____	22Z-38=_____

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

22Z–42. $(1/\pi)\sqrt[4]{\dfrac{1.25 + 0.365}{0.0114 - 0.0107}}$ --------------------------------- 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. $\dfrac{1}{\sqrt{2360 + 5930 + 2410}} + \left(\dfrac{1}{\sqrt{7.77}}\right)^4$ ----------------------- 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

22Z-49.	22Z-50.
RIGHT TRIANGLE	ISOSCELES RIGHT TRIANGLE
22Z-49=_____	22Z-50=_____

22Z-49 figure: right triangle with vertical side 62300, horizontal side 80900, hypotenuse labeled ?

22Z-50 figure: isosceles right triangle with side labeled 4.7×10^{12}, Triangle Area = ?

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

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

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

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

22Z–55. $\sqrt{\dfrac{(3.95 \times 10^5)(6.14 \times 10^5)}{(33400)(4300)}} - 31.4 + 39.4$ ---------------- 55=_____
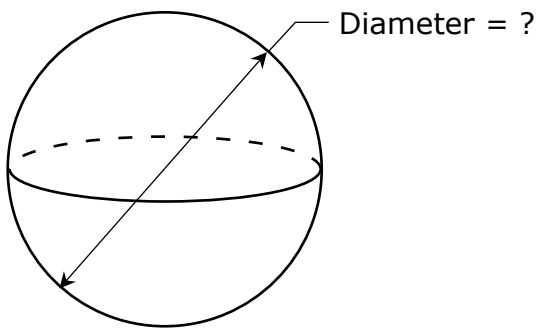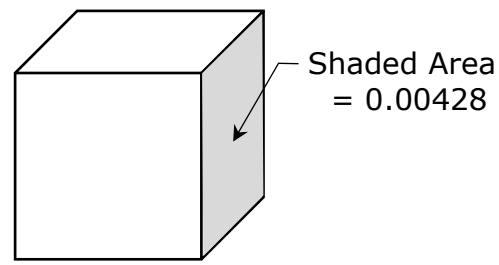
22Z–56. $10400 + \sqrt{(25900)(35700)} - (39700 + 35300)$ ---------- 56=_____

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

22Z–58. $\sqrt{\dfrac{(1190)(13)}{(71.6) + (86.4)}} + 1/(1.58)^{-5}$ ------------------------- 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/sec², 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

22Z-61.
SPHERE

Diameter = ?

Volume = 849000

22Z-61=_____

22Z-62.
CUBE

Shaded Area = 0.00428

Volume = ?

22Z-62=_____

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

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

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

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

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

22Z–68. (deg) $\dfrac{\sin(1.39°) - \tan(1.39°)}{\sin(1.39°)}$ ------------------------------ 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

1.20

0.859
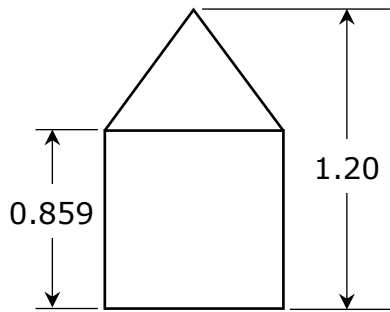
Total Area = ?

22Z-73=_____

22Z-74.
SCALENE TRIANGLE

63600

35000

34500
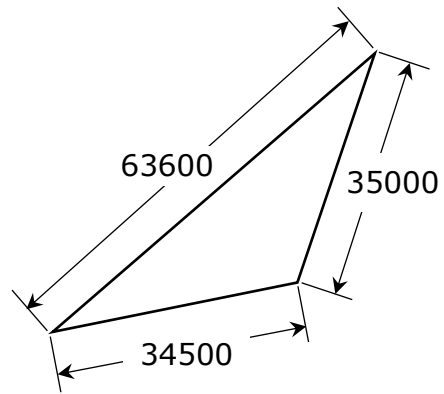
Semi-Perimeter = ?

22Z-74=_____

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

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

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

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

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

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

2022 UIL MS Calculator Test C Answer Key

22Z-1 = 1890
$= 1.89 \times 10^3$

22Z-2 = 33.0
$= 3.30 \times 10^1$

22Z-3 = 952
$= 9.52 \times 10^2$

22Z-4 = -4.86
$= -4.86 \times 10^0$

22Z-5 = -193
$= -1.93 \times 10^2$

22Z-6 = -309
$= -3.09 \times 10^2$

22Z-7 = -0.312
$= -3.12 \times 10^{-1}$

22Z-8 = -8.11
$= -8.11 \times 10^0$

22Z-9 = 811000
$= 8.11 \times 10^5$

22Z-10 $= 5.36 \times 10^{10}$

22Z-11 = -493000
$= -4.93 \times 10^5$

22Z-12 = 1477.27
Dollar Answer

22Z-13 = 1008
Integer Answer

22Z-14 = 91100
$= 9.11 \times 10^4$

22Z-15 = -0.00179
$= -1.79 \times 10^{-3}$

22Z-16 $= -1.54 \times 10^6$

22Z-17 = 2.29
$= 2.29 \times 10^0$

22Z-18 = 2.91
$= 2.91 \times 10^0$

22Z-19 = 14.6
$= 1.46 \times 10^1$

22Z-20 = 2.44
$= 2.44 \times 10^0$

22Z-21 = 0.0213
$= 2.13 \times 10^{-2}$

22Z-22 = 0.483
$= 4.83 \times 10^{-1}$

22Z-23 = 35.5
$= 3.55 \times 10^1$

22Z-24 = 90
Integer Answer

22Z-25 = 25.4
$= 2.54 \times 10^1$

22Z-26 = 4974.01
Dollar Answer

22Z-27 $= -2.05 \times 10^{-11}$

22Z-28 $= -9.01 \times 10^{12}$

22Z-29 = -8260
$= -8.26 \times 10^3$

22Z-30 $= 4.30 \times 10^{-10}$

22Z-31 $= 1.12 \times 10^{-12}$

22Z-32 = 0.264
$= 2.64 \times 10^{-1}$

22Z-33 = -0.000267
$= -2.67 \times 10^{-4}$

22Z-34 = 1.94
$= 1.94 \times 10^0$

22Z-35 = 3
Integer Answer

22Z-36 = 16.9
$= 1.69 \times 10^1$

22Z-37 = 82.2
$= 8.22 \times 10^1$

22Z-38 = 71.9
$= 7.19 \times 10^1$

2022 UIL MS Calculator Test C Answer Key

22Z-39	= 6.46x10^8	
22Z-40	= 3.53x10^8	
22Z-41	= 211000	= 2.11x10^5
22Z-42	= 2.21	= 2.21x10^0
22Z-43	= -2.67x10^19	
22Z-44	= 9200	= 9.20x10^3
22Z-45	= 0.0262	= 2.62x10^-2
22Z-46	= 0.816	= 8.16x10^-1
22Z-47	= 20.9	= 2.09x10^1
22Z-48	= 1530	= 1.53x10^3
22Z-49	= 102000	= 1.02x10^5
22Z-50	= 5.52x10^24	

22Z-51	= 4.16x10^11	
22Z-52	= 0.0321	= 3.21x10^-2
22Z-53	= 85200	= 8.52x10^4
22Z-54	= 3.29x10^-8	
22Z-55	= 49.1	= 4.91x10^1
22Z-56	= -34200	= -3.42x10^4
22Z-57	= -331	= -3.31x10^2
22Z-58	= 19.7	= 1.97x10^1
22Z-59	= 96.0	= 9.60x10^1
22Z-60	= 18.7	= 1.87x10^1
22Z-61	= 117	= 1.17x10^2
22Z-62	= 0.000280	= 2.80x10^-4
22Z-63	= 4.03x10^19	
22Z-64	= 8.09x10^-9	
22Z-65	= -1.09	= -1.09x10^0
22Z-66	= 1.21	= 1.21x10^0
22Z-67	= 1.77	= 1.77x10^0
22Z-68	= -0.000294	= -2.94x10^-4
22Z-69	= -1.07	= -1.07x10^0
22Z-70	= 545	= 5.45x10^2
22Z-71	= 148	= 1.48x10^2
22Z-72	= 3.08	= 3.08x10^0

22Z-73	= 0.884	= 8.84x10^-1
22Z-74	= 66600	= 6.66x10^4
22Z-75	= 0.00824	= 8.24x10^-3
22Z-76	= -0.692	= -6.92x10^-1
22Z-77	= 2980	= 2.98x10^3
22Z-78	= 2.36	= 2.36x10^0
22Z-79	= 113000	= 1.13x10^5
22Z-80	= 0.509	= 5.09x10^-1

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

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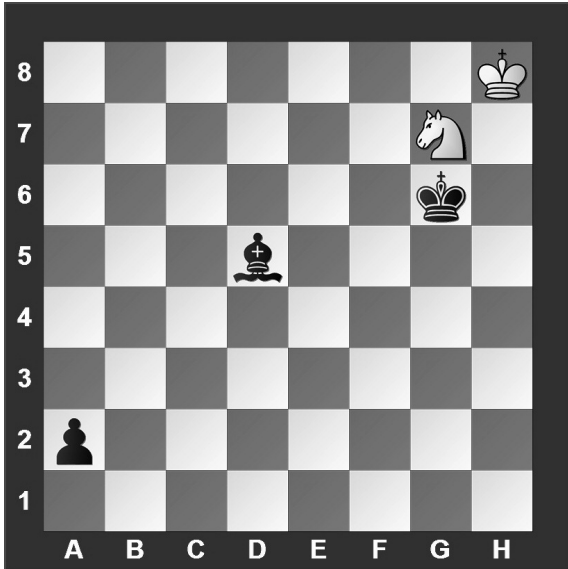b) Black is in stalemate.
c) Black is in check.
d) None of the above.

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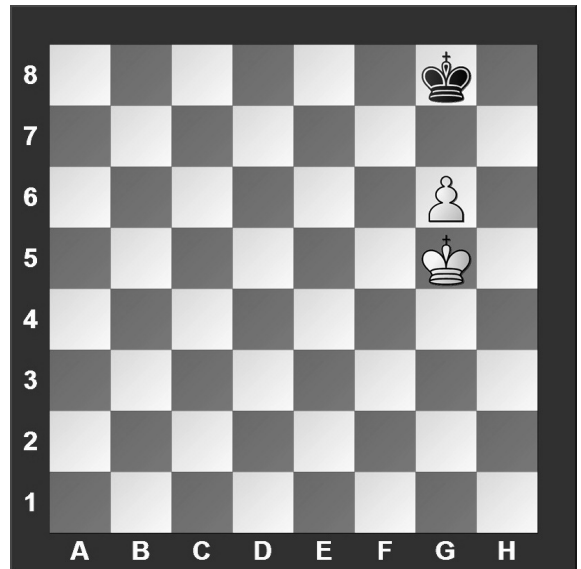
With the best moves, what is the outcome of the game?

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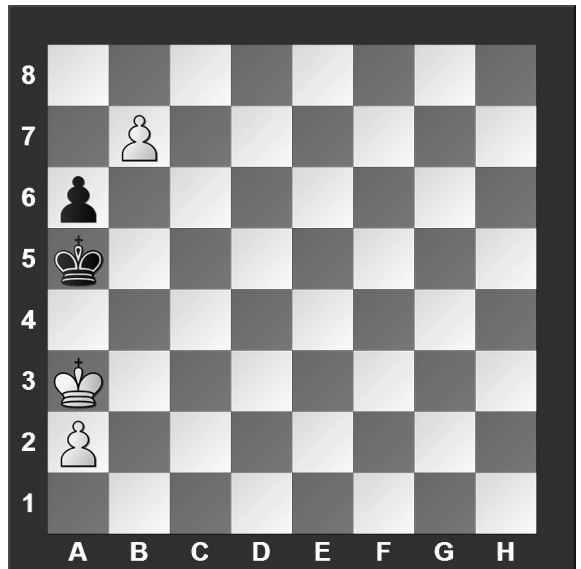b) Black wins.
c) Draw.
d) It is impossible to tell.

#7. White to move
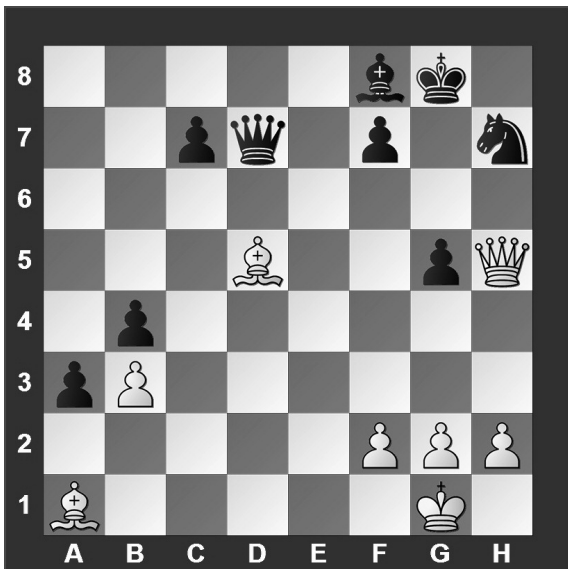
If White can checkmate Black in two moves, what is the first move?
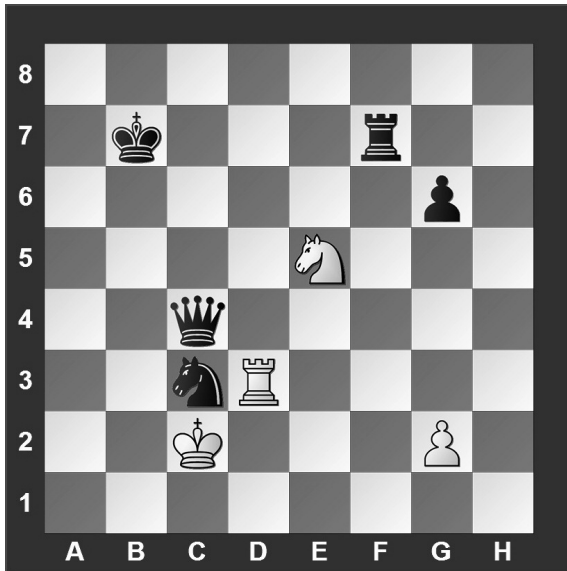
a) ♕g6
b) ♕×h7
c) ♕×f7
d) ♗×f7

#8. White to move

What piece should White promote to?
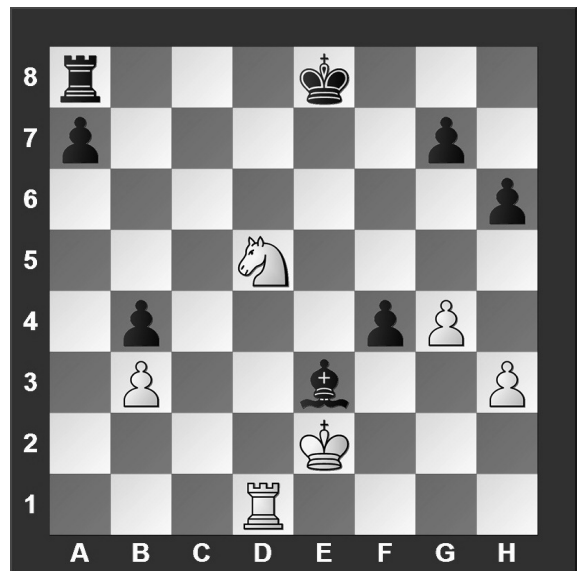
a) Queen.
b) Rook.
c) Bishop.
d) Knight.

#9. White to move

What piece should White capture?

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

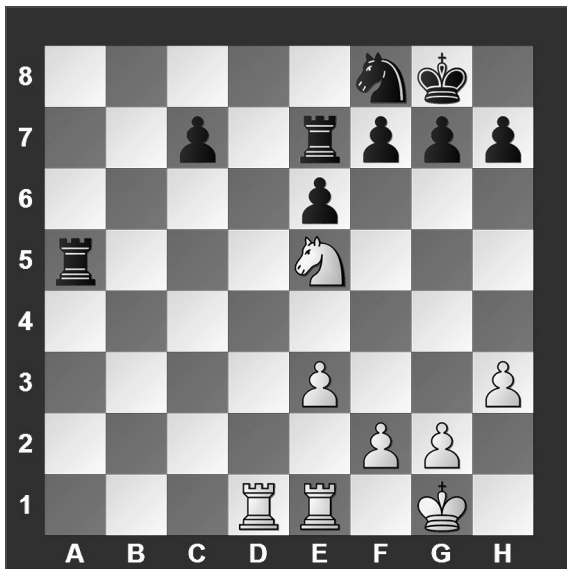**#10. White to move**

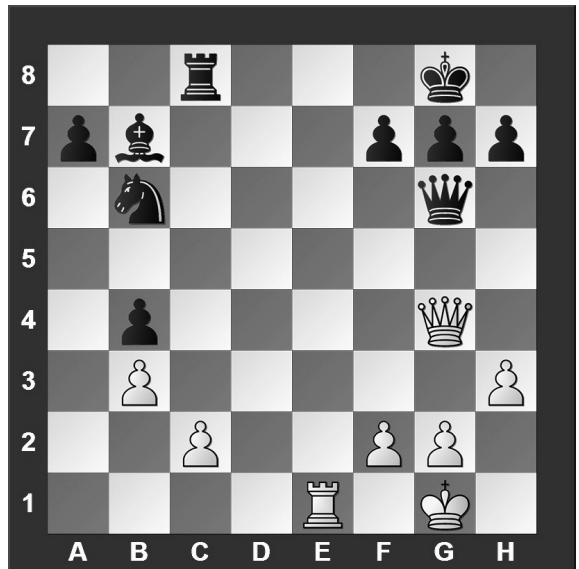What is White's best move?

a) ♘×f4
b) ♘×e3
c) ♘c7
d) ♖d4

#11. White to move

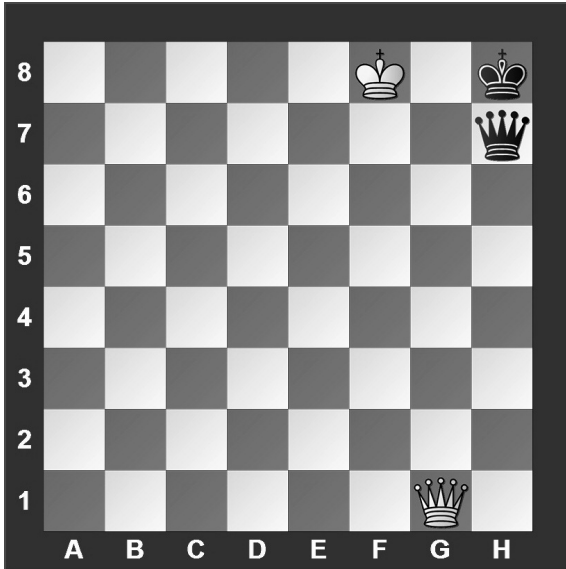What is White's best move?

a) ♘×f7
b) ♘g6
c) ♖d8
d) ♘c6

#12. White to move

What is White's best move?

a) ♕×c8
b) ♖e8
c) ♕×g6
d) ♕×b4

#13. White to move

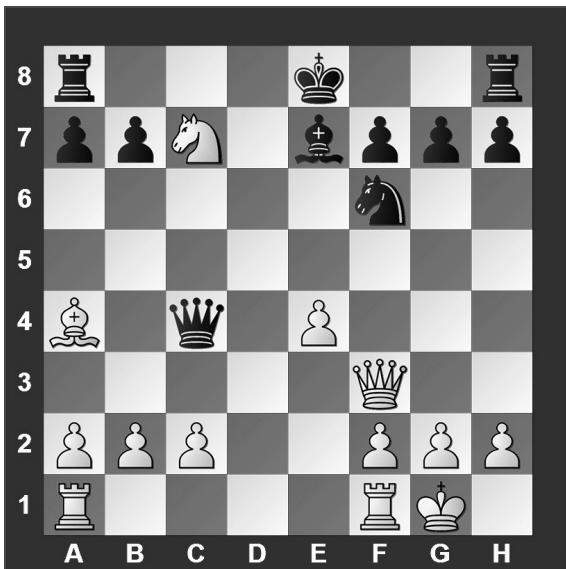What is White's best move?

a) ♕g7
b) ♕g8
c) ♕g4
d) ♕a1

#14. White to move

What is White's best move?

a) ♗×b6
b) ♗×c3
c) ♖g8
d) ♗×f6

#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) ♗×g6
b) ♖h8
c) a×b4
d) ♖h7

#17. White to move

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

a) ♖h8
b) ♖f8
c) ♖×d7
d) ♗×f3

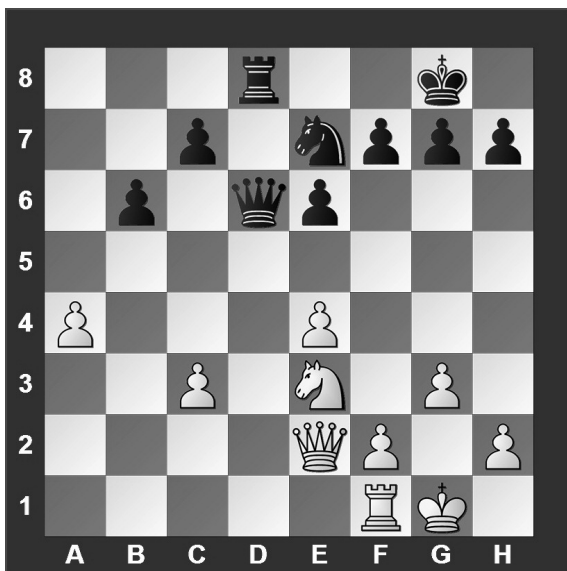**#18. White to move**
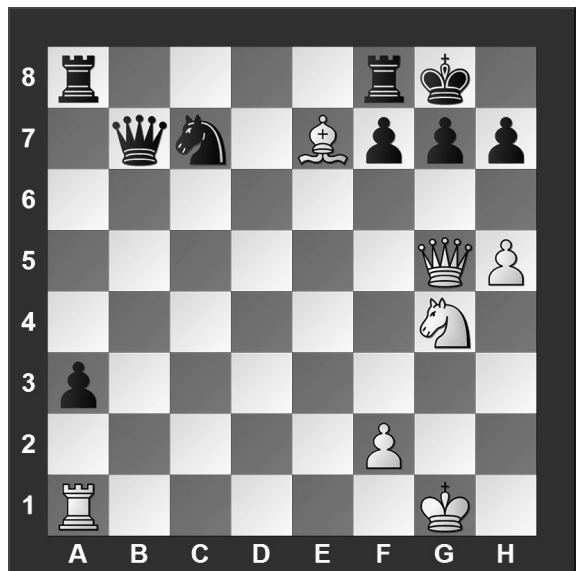
What is White's best move?

a) ♘c2
b) ♘c4
c) g5
d) ♕×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) ♖×a3
d) ♕×g7

University Interscholastic League
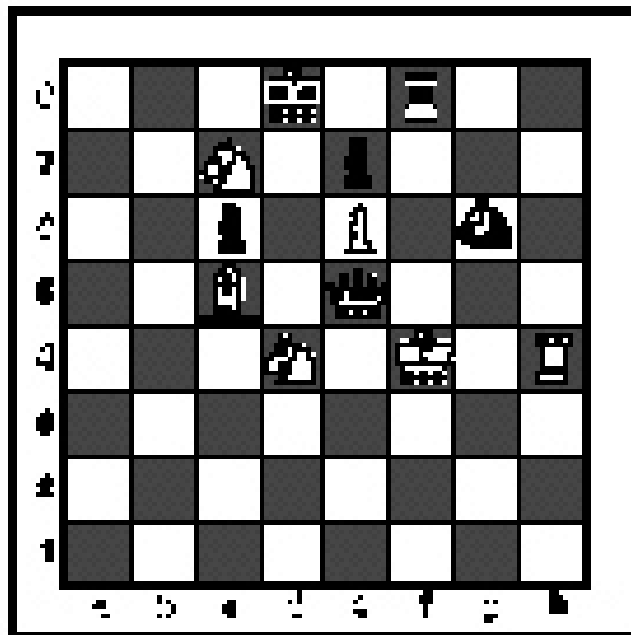
Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> 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!
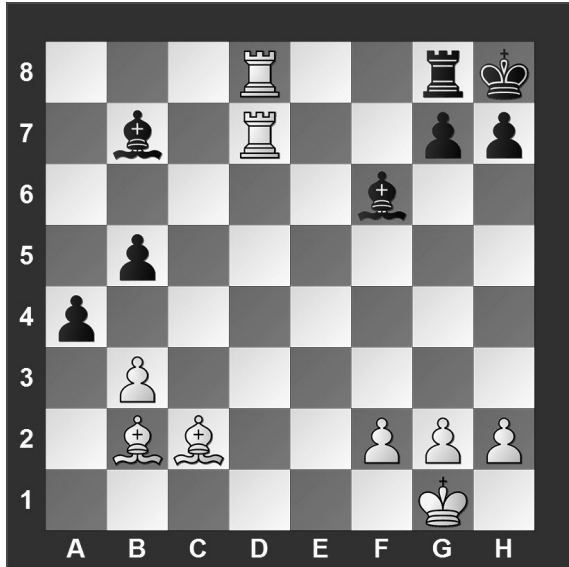
#1. White to move

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
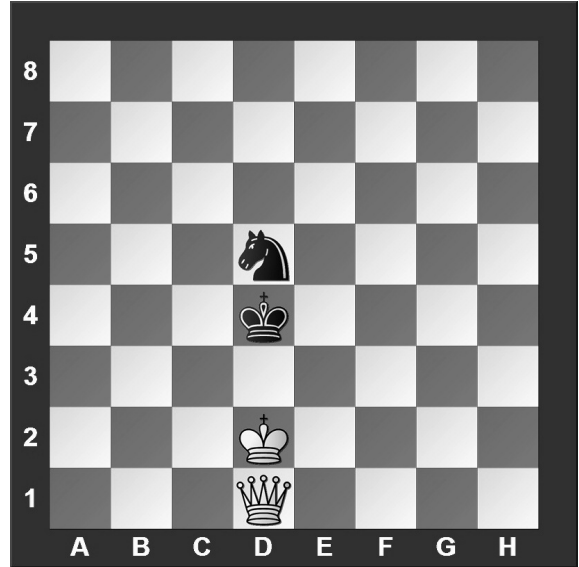
What should be the outcome of the game?

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

#3. White to move
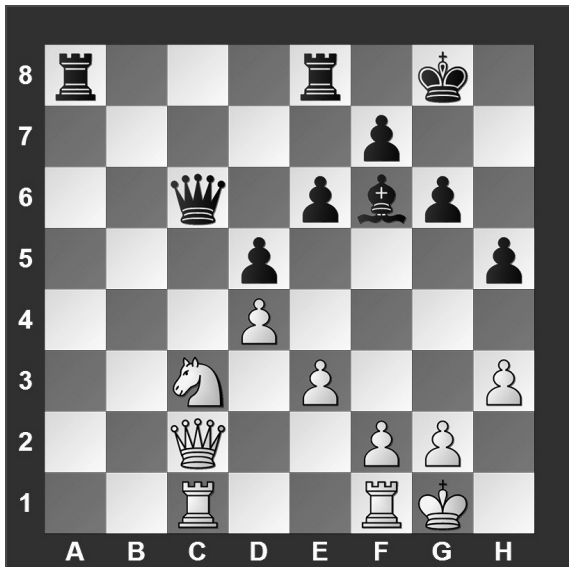
What is White's best move?

a) ♘×d5
b) ♕×g6
c) ♘e4
d) e4

#4. White to move
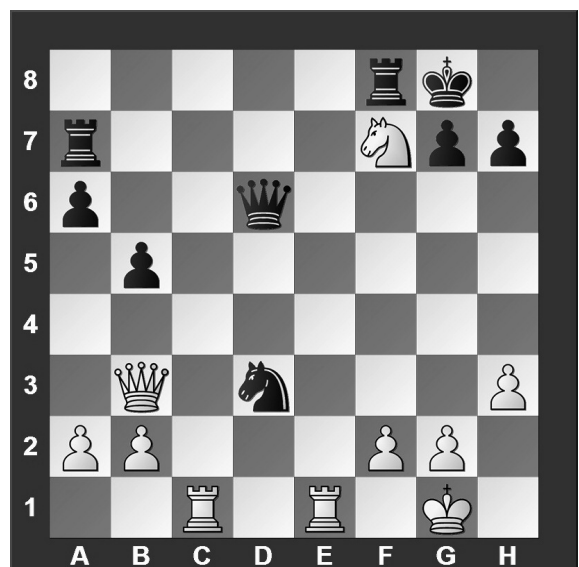
What is White's best move?

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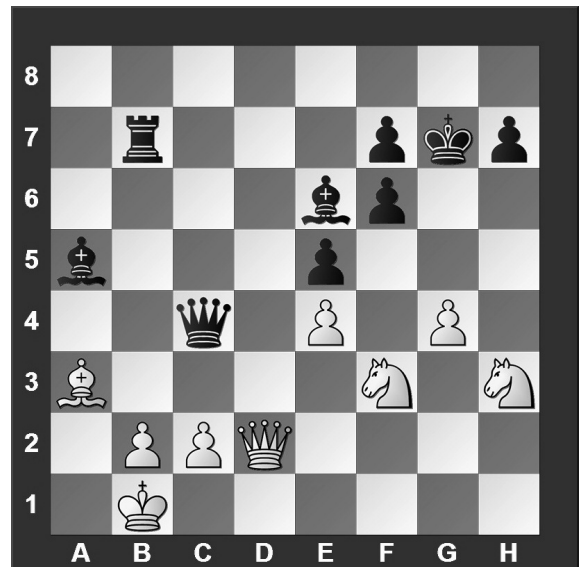
If White can force checkmate in three moves, what is the *last* move?

a) ♗f8
b) ♕h6
c) ♘h4
d) ♘f4

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

Test

1. B
2. A
3. A
4. A
5. D
6. C
7. A
8. D
9. A
10. C

11. D
12. A
13. D
14. D
15. D
16. B
17. C
18. A
19. C
20. D

Tiebreaker

1. D
2. A
3. C
4. A

5. A
6. D
7. D
8. C

University Interscholastic League

Chess Puzzle Solving
grades 6, 7, 8

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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.

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

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
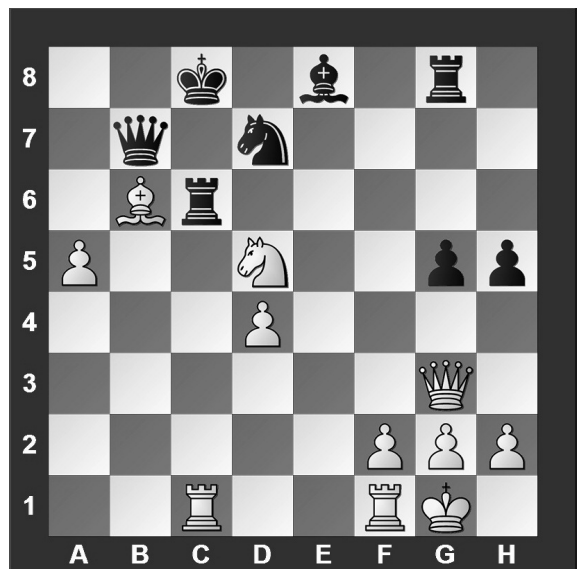
What is White's best move?

a) ♕c7
b) ♖×c6
c) ♘e7
d) ♕b8

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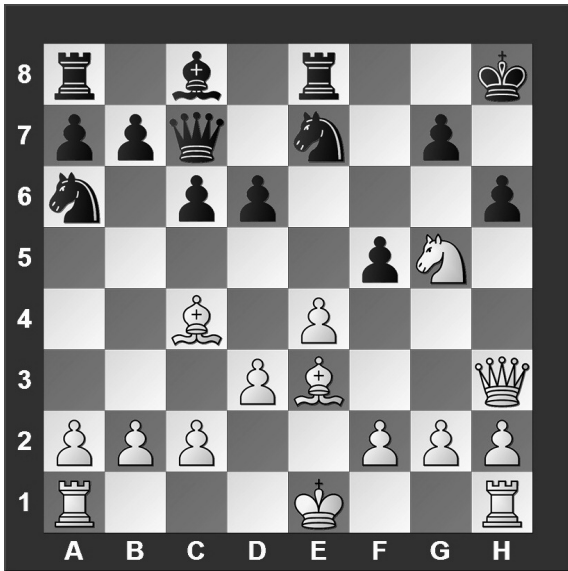
White can checkmate Black in two moves, what's the *first* move?

a) ♕×h6
b) ♘f7
c) ♗b6
d) ♕h4

#10. White to move
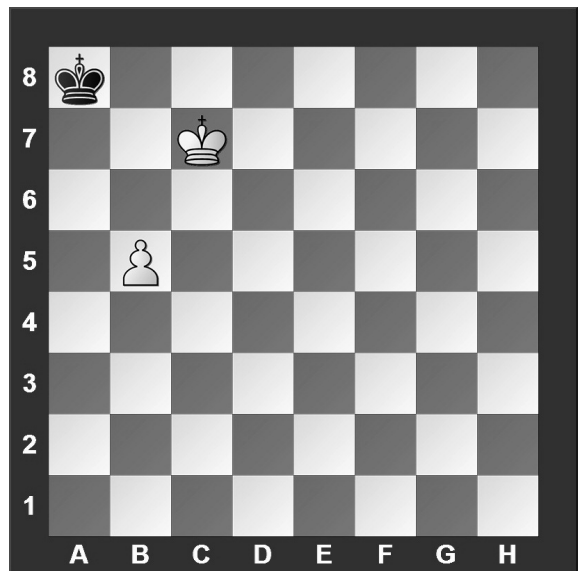
What is White's best move?

a) ♔b6
b) b6
c) ♔d8
d) ♔d7

#11. White to move
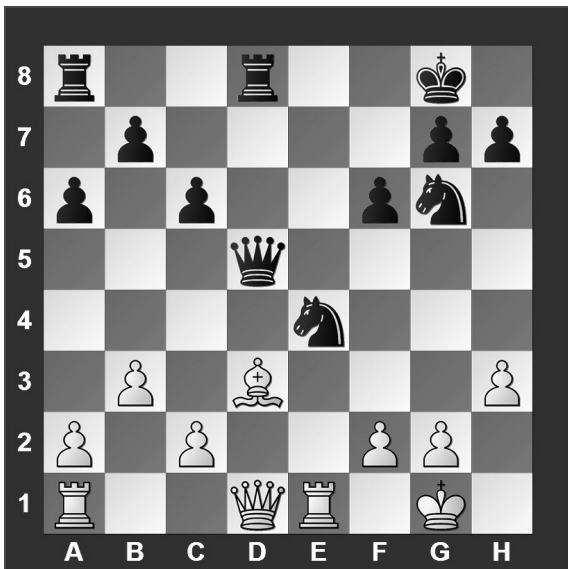
What is White's best move?

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

#14. White to move

What is White's best move?
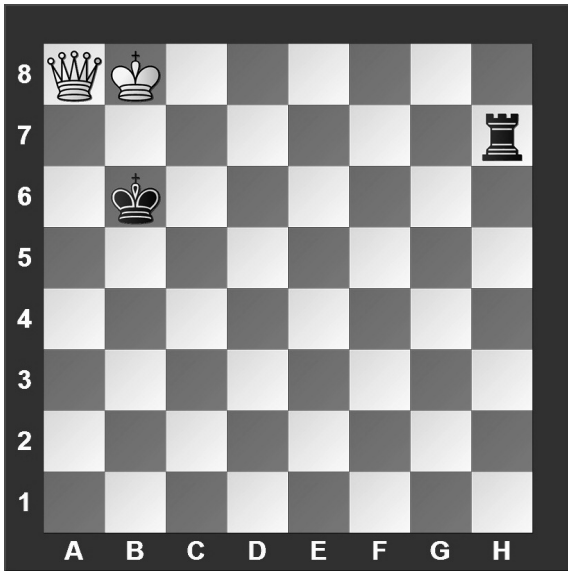
What is White's best move?

a) ♕b7
b) ♕a7
c) ♕e4
d) ♕a1

a) ♖×f7
b) ♗h6
c) ♘b5
d) e×d5

#15. White to move
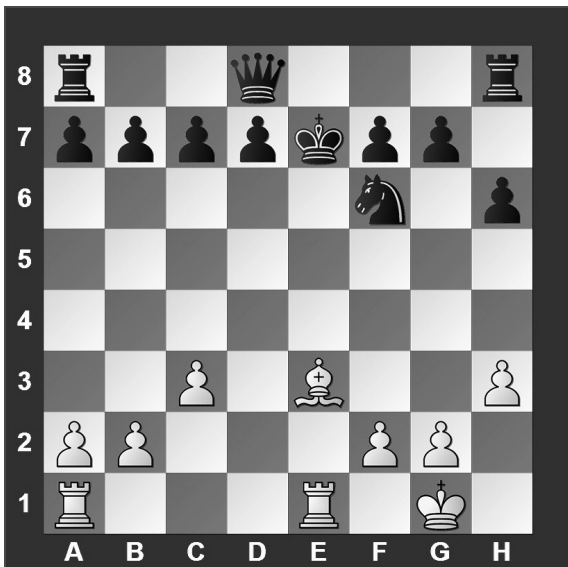
#16. White to move

If White can checkmate Black in one move, what's the right move?
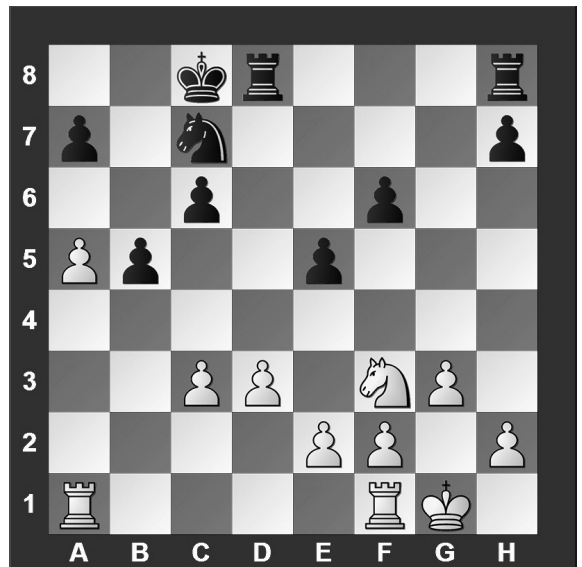
Black just played b7 to b5. Which pawn can be captured?

a) ♗g5
b) ♗×h6
c) ♗c5
d) ♗×a7

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

#17. White to move
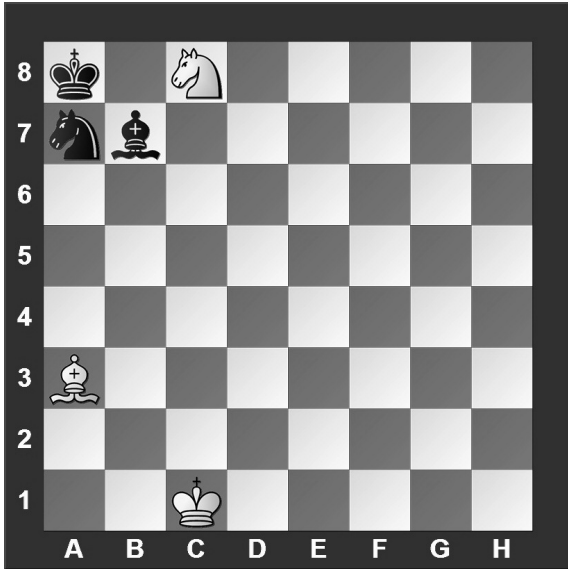
What is White's best move?
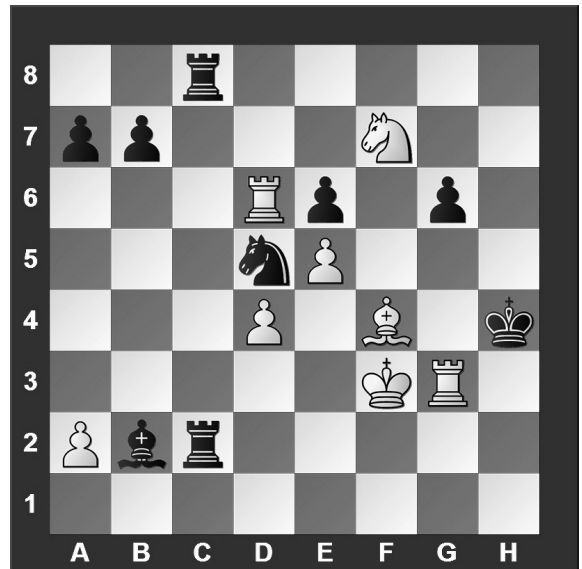
a) ♘×a7
b) ♘d6
c) ♘b6
d) ♗d6

#18. White to move

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

a) ♖h3
b) ♖g4
c) ♗g5
d) ♖×d5
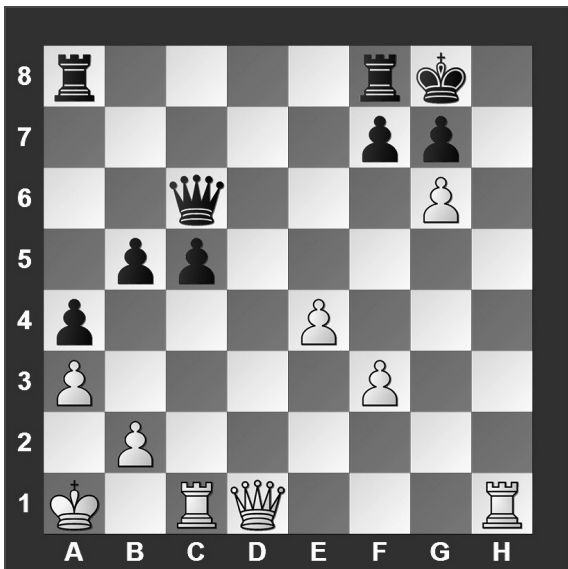
#19. White to move

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

a) g×f7
b) ♕d5
c) ♕d6
d) ♖h8
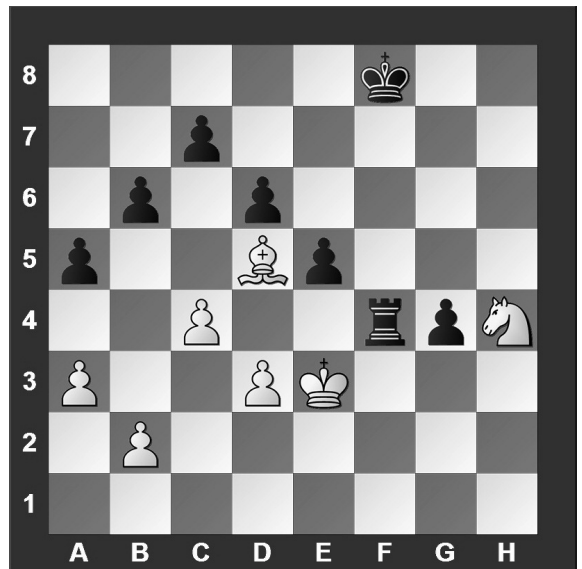
#20. White to move

What is White's best move?

a) ♘g6
b) ♘g2
c) ♗f3
d) ♔e2

A+ ACADEMICS

University Interscholastic League
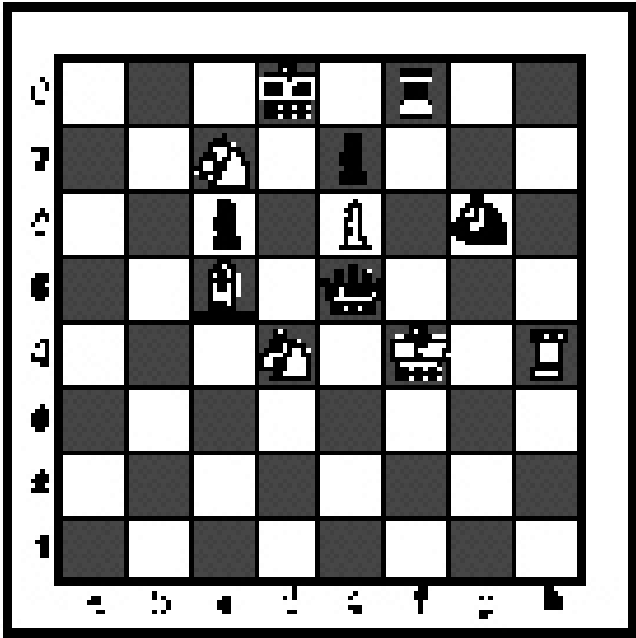
Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> 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!
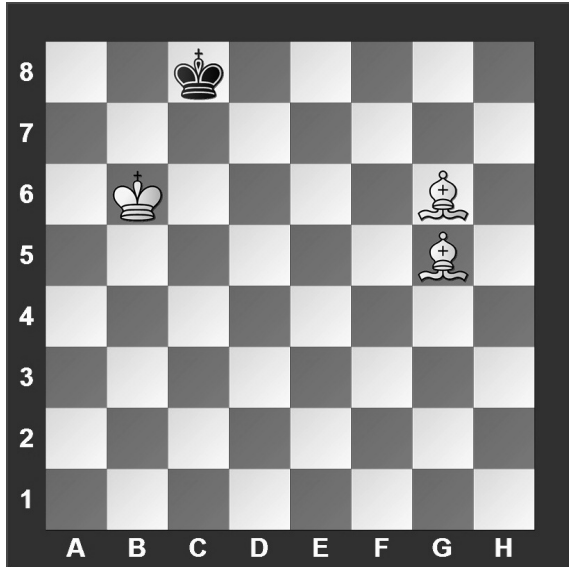
#1. White to move

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) ♘d6
b) ♘a7
c) ♗×b6
d) c4

#3. White to move
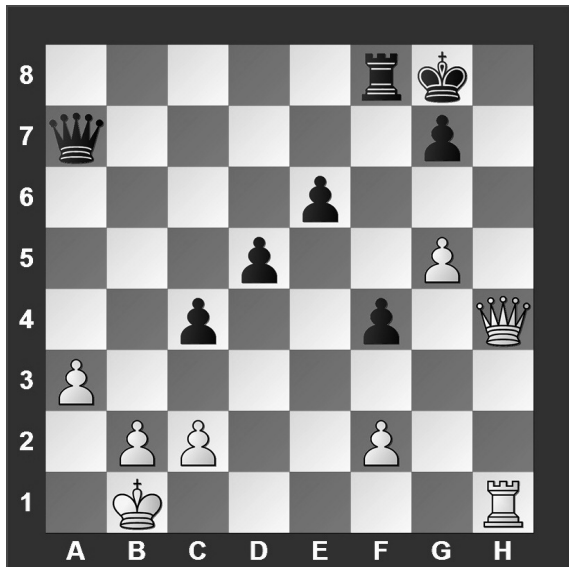
What is White's best move?

a) ♕h7
b) ♕h8
c) g6
d) c3

#4. White to move
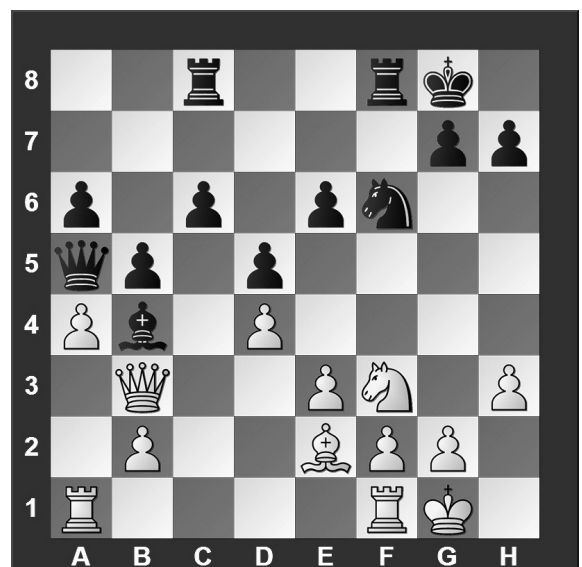
What is White's best move?

a) ♗×b5
b) a×b5
c) ♕×d5
d) ♘e5

#5. White to move

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

a) ♕xb7
b) ♕c6
c) ♕×f5
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
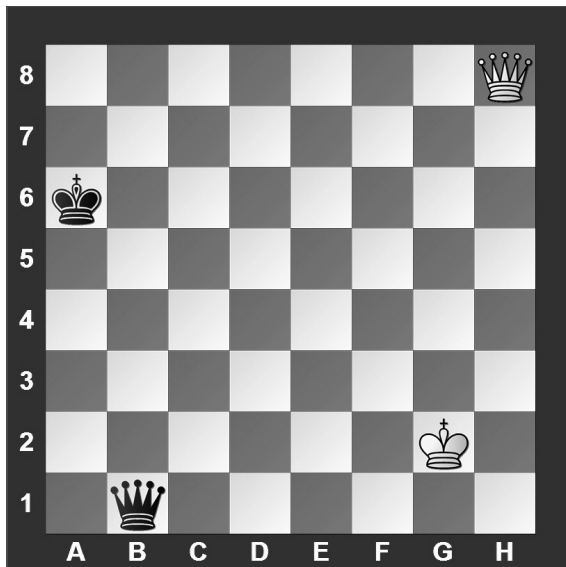
What is White's best move?

a) ♕b8
b) ♕a1
c) ♕a8
d) ♕f6

#8. White to move
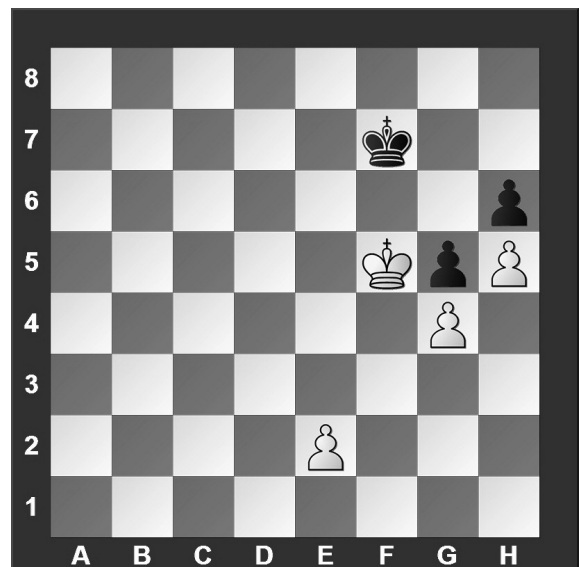
With best play what is the outcome of the game?

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

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

Test

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

Tiebreaker

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

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.

a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

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. White to move
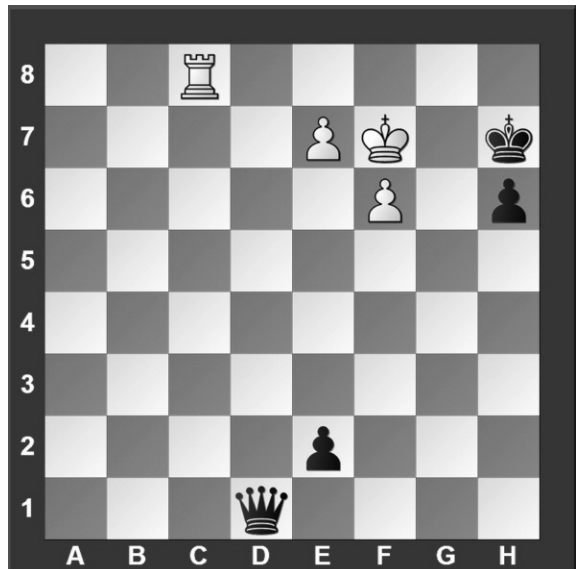
What is White's best move?

a) e8=♕
b) e8=♖
c) e8=♘
d) ♖h8

#5.
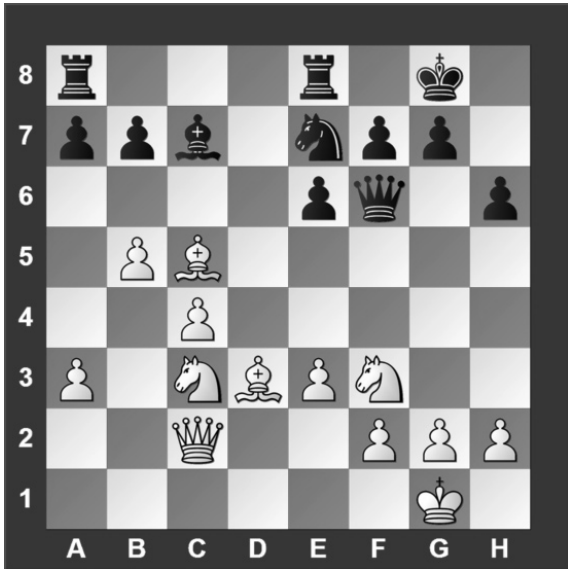
Which side has material advantage?

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
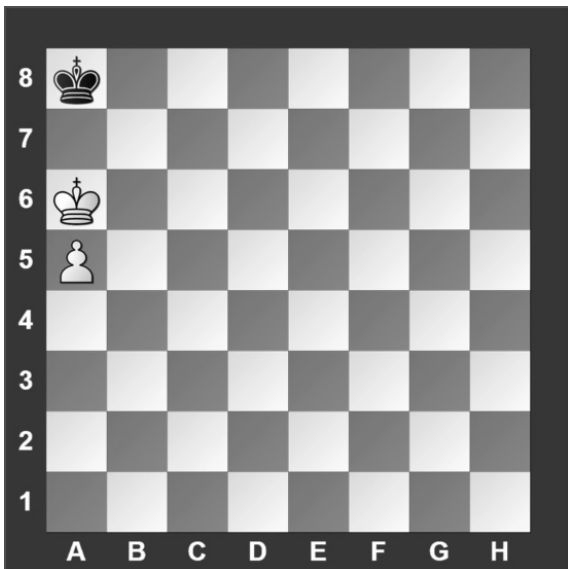
What is the outcome of the game?

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

#8. Black to move
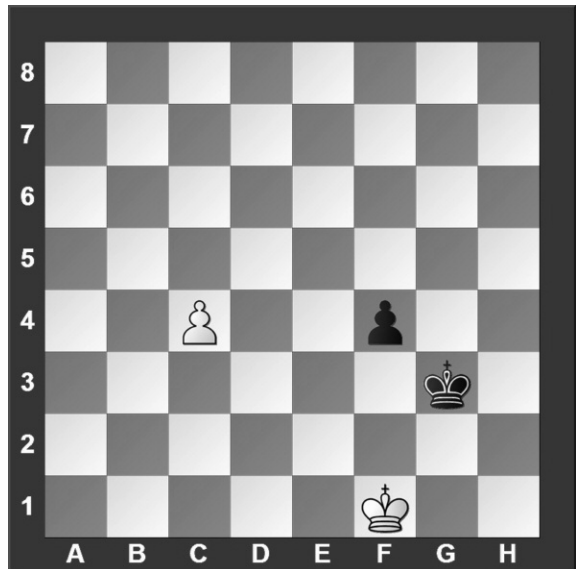
What is the outcome of the game with the best play?

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

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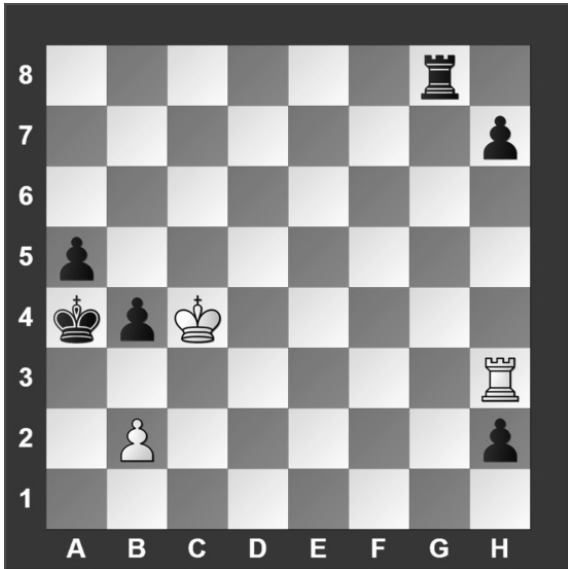
White can checkmate Black in two moves, what's the *first* move?

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
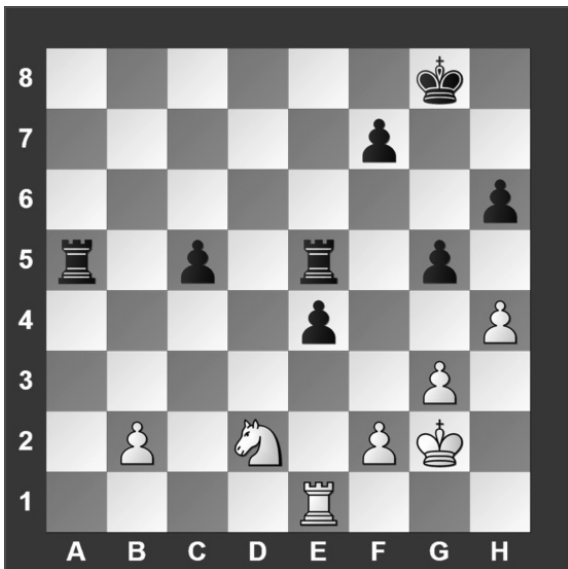
What is White's best move?

a) **♘×e4**
b) **♘c4**
c) **♖×e4**
d) **♘b3**

#12. White to move
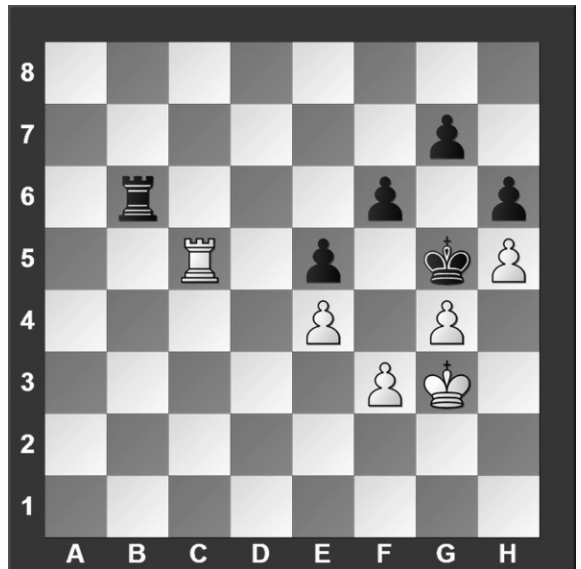
What is White's best move?

a) **♖×e5**
b) **f4**
c) **♖c7**
d) **♔h3**

#13. White to move
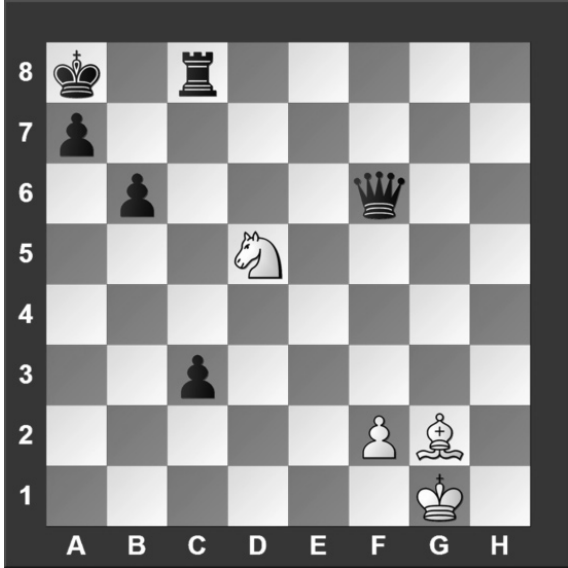
White can checkmate Black in two moves, what is the *first* move?

a) ♘×f6
b) ♘×b6
c) ♘c7
d) ♘b4

#14. White to move
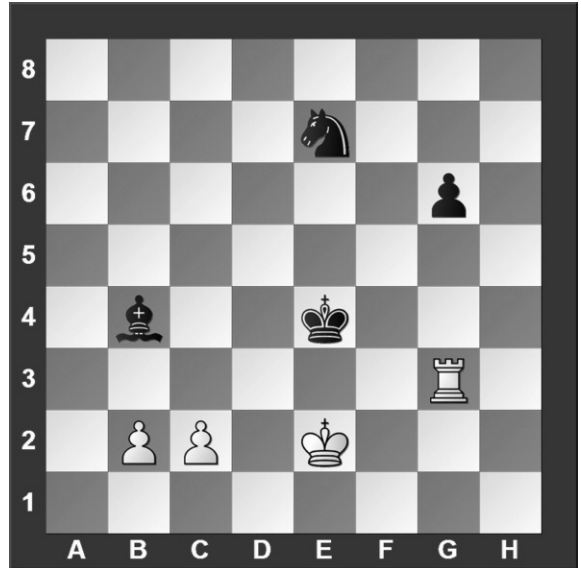
What is White's best move?

a) ♖e3
b) ♖g4
c) ♖×g6
d) c3

#15. White to move
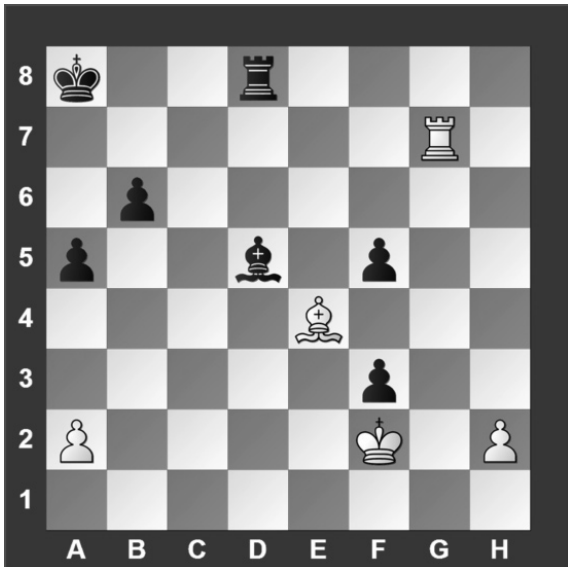
What is White's best move?

a) ♗×d5
b) ♗×f5
c) ♖g8
d) ♗×f3

#16. White to move
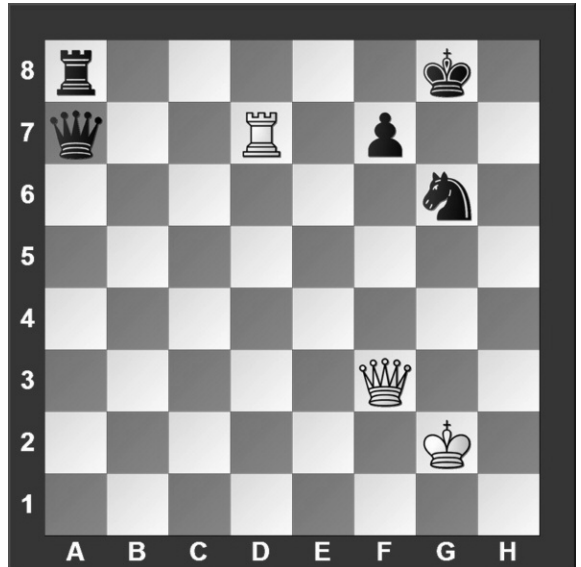
What is White's best move?

a) ♖×a7
b) ♖×f7
c) ♕×a8
d) ♕×f7

#17. White to move
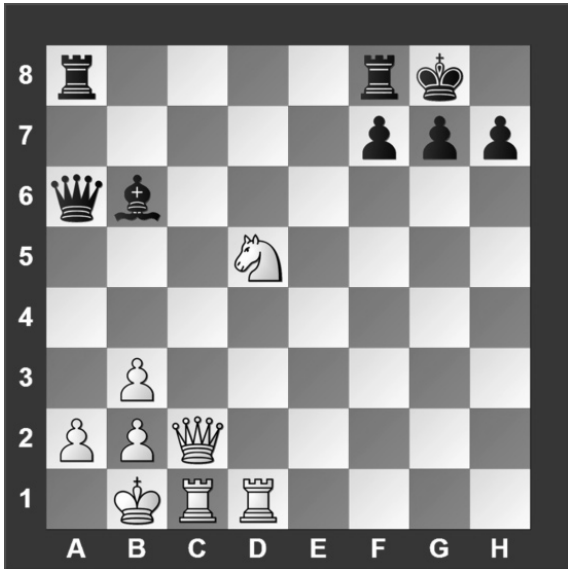
White can checkmate Black in three moves, what is the *first* move?
a) ♘e7
b) ♕×h7
c) ♘f6
d) ♖g1

#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
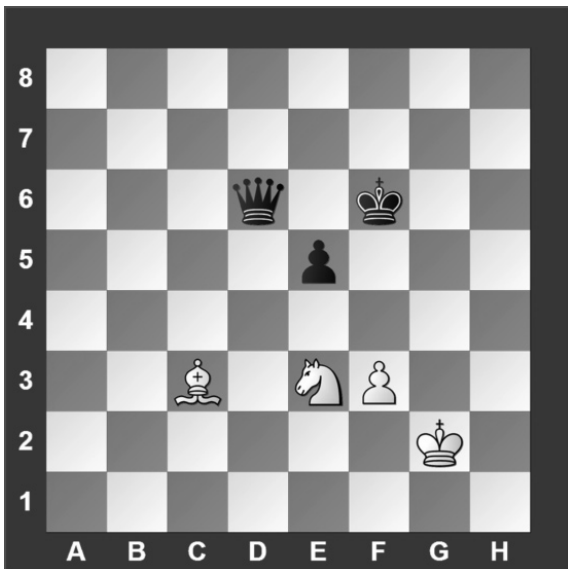
What is White's best move?

a) ♘g4
b) ♗×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

A+ ACADEMICS

University Interscholastic League
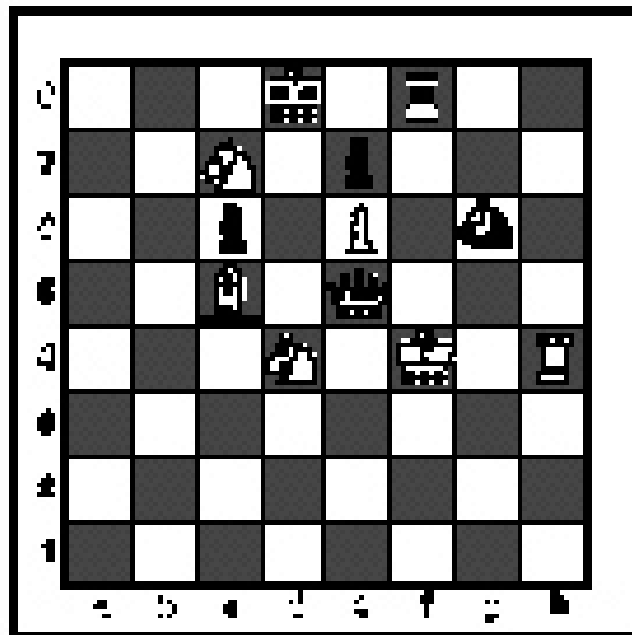
Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> 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!
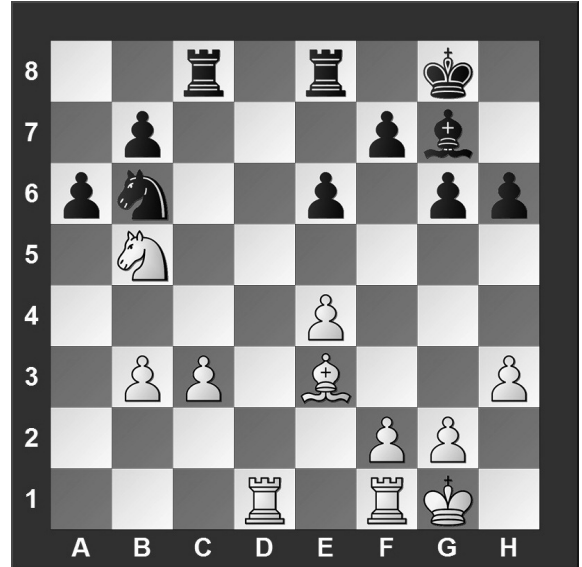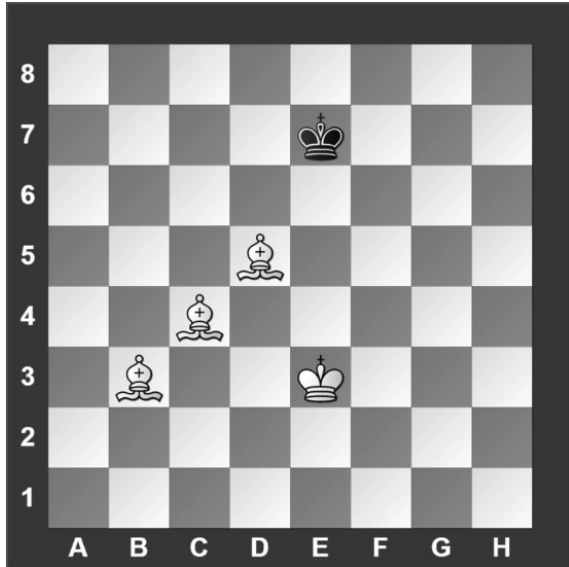
#1. White to move

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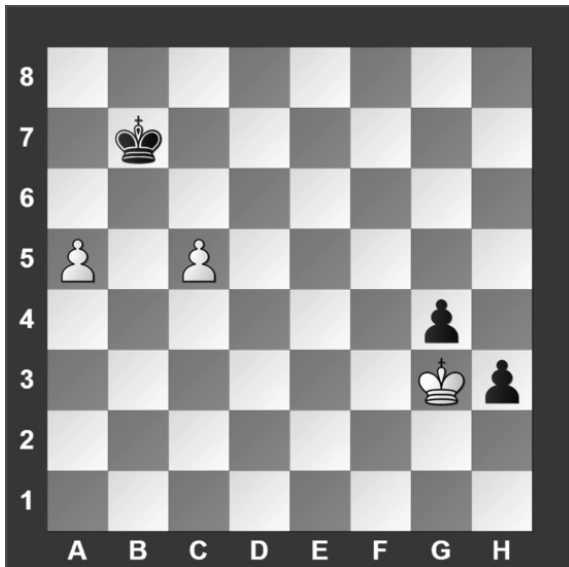
With the best play, what is the outcome of the game?

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) ♖×d8
d) ♖×a7
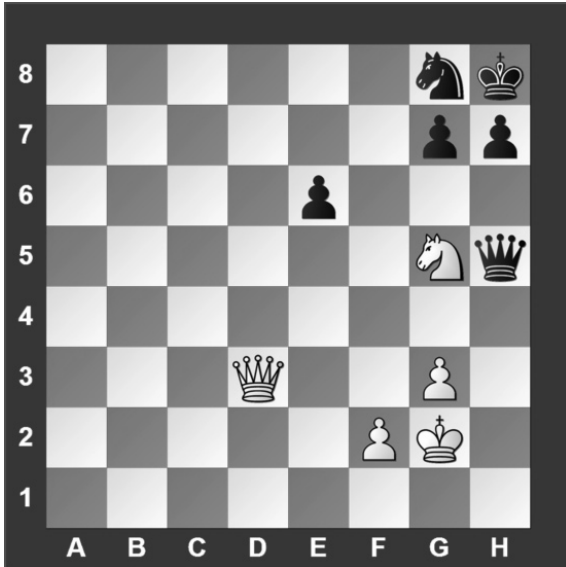
#5. White to move

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

a) ♕xh7
b) ♘f7
c) ♘×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
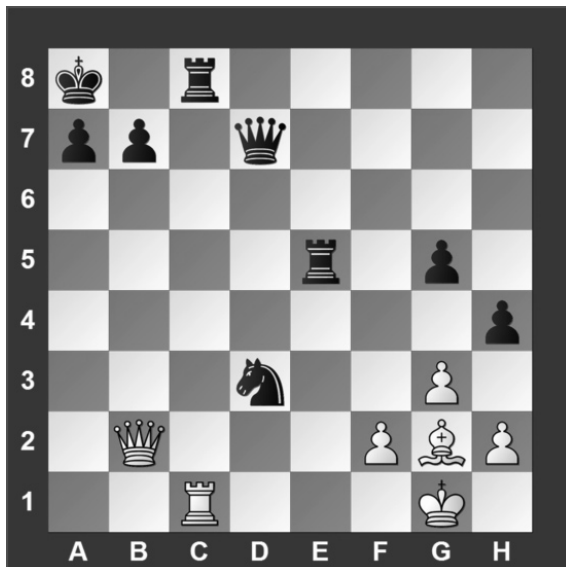
If White can checkmate Black in two moves, what is White's *second* move?

a) ♕×b7
b) ♖c7
c) ♖×c8
d) ♗×b7

#8. White to move
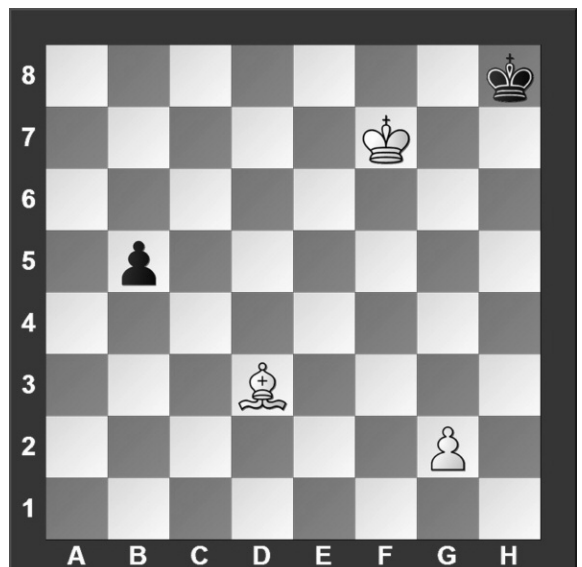
How many moves should it take to check-mate Black in this position?

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

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

Test

1. D
2. A
3. A
4. D
5. C
6. B
7. C
8. C
9. C
10. C

11. B
12. B
13. C
14. B
15. C
16. D
17. A
18. B
19. B
20. B

Tiebreaker

1. C
2. A
3. C
4. D

5. A
6. C
7. C
8. B

FOR GRADER USE ONLY
Score Test Below:

_____out of 120. Initials_____

_____out of 120. Initials_____

Papers contending to place:

_____out of 120. Initials_____

UIL

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		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	E	F	G	H
14.	A	B	C	D		34.	A	B	C	D	E	F	G	H
15.	A	B	C	D		35.	A	B	C	D	E	F	G	H
16.	A	B	C	D		36.	A	B	C	D	E	F	G	H
17.	A	B	C	D		37.	A	B	C	D	E	F	G	H
18.	A	B	C	D		38.	A	B	C	D	E	F	G	H
19.	A	B	C	D		39.	A	B	C	D	E	F	G	H
20.	A	B	C	D		40.	A	B	C	D	E	F	G	H

INVITATIONAL 2021-2022
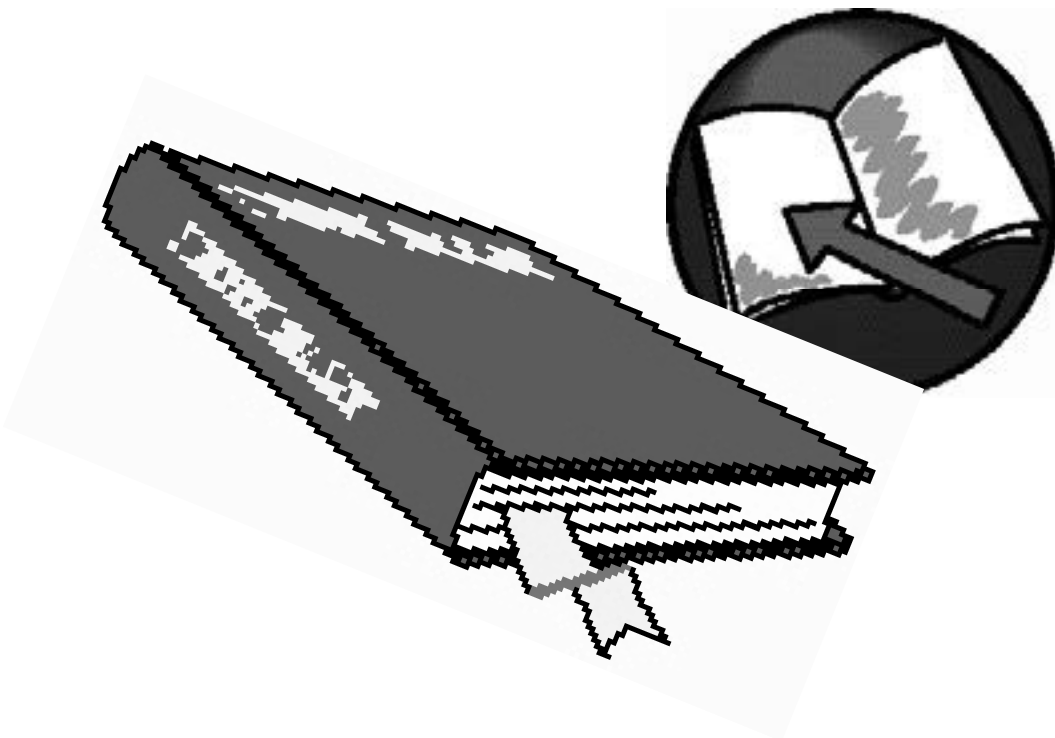
A+ ACADEMICS

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   C. Kampala
    B. Regina   D. Charlotte Amalie

22. Who was the founder of Mormonism in 1830?
    A. James Moore   C. Charles Mustard
    B. Joseph Smith   D. Timothy Arnold

23. Which of the following is an ordinal number?
    A. Five   C. Sixteen
    B. First   D. Nine

24. What is the period of rotation for Jupiter?
    A. 2.5 days   C. 16.11 hours
    B. 11.86 hours   D. 9.92 hours

25. In the marines, a staff sergeant is below what ranking?
    A. Gunnery Sergeant   C. Technical Sergeant
    B. Platoon Sergeant   D. Assembly Sergeant

26. All of the following ingredients can be found in marzipan, **EXCEPT**?
    A. Almond paste   C. Baking Soda
    B. Sugar   D. Egg Whites

27. How many horizontal lines make up a staff in written music?
    A. 4   C. 6
    B. 5   D. 3

28. Which of the following does **NOT** use the abbreviation Sc?
    A. Small capitals   C. Scots
    B. Sound clouds   D. Scottish

29. What is the name of a person who is not Jewish?
    A. Drake   C. Stringer
    B. Celt   D. Gentile

30. What year did the U.S. government establish the social security program?
    A. 1935   C. 1920
    B. 1942   D. 1939

31. What is a dilettante a lover of?
    A. Cooking   C. The arts
    B. Spots   D. Nature

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

INVITATIONAL 2021-2022
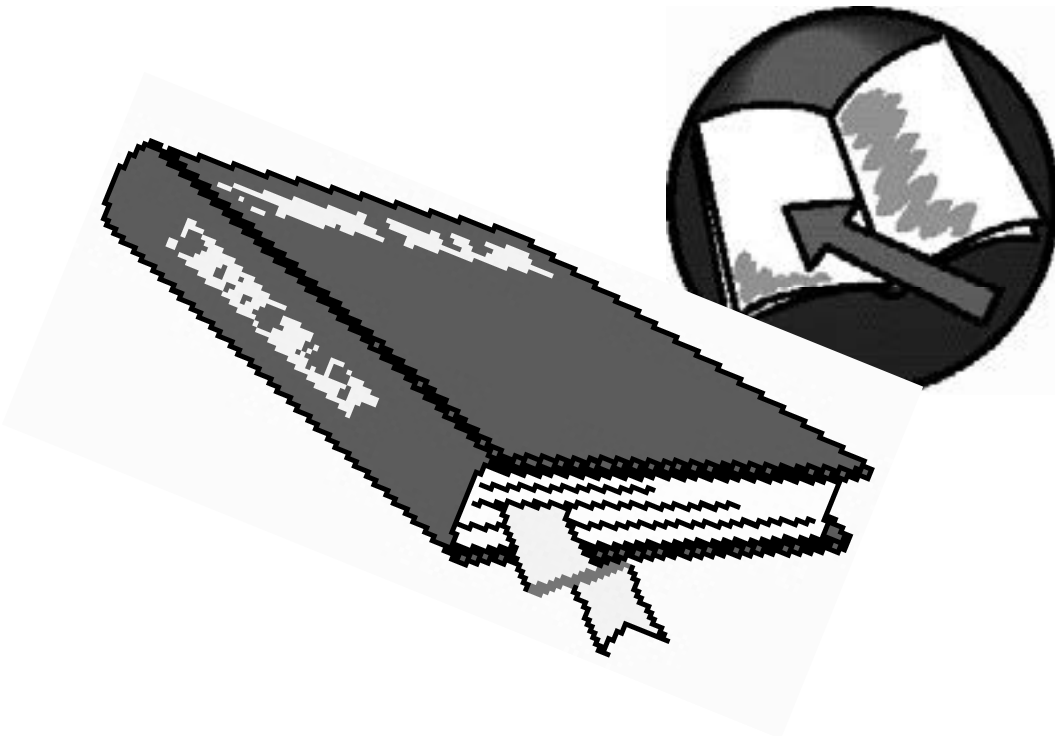
A+ ACADEMICS

University Interscholastic League

Dictionary Skills
grades 7 & 8

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University Interscholastic League
2021-22 Dictionary Skills Contest
Invitational District Test — Grades 7 & 8

1. What type of reptile is a Gila monster?
   - A. Lizard
   - B. Snake
   - C. Turtle
   - D. Crocodile

2. How long is the James River?
   - A. 547 miles
   - B. 201 miles
   - C. 340 miles
   - D. 310 miles

3. What type of racing is a trotter trained for?
   - A. Flat racing
   - B. Jump racing
   - C. Harness racing
   - D. Maiden racing

4. What century was the oboe developed?
   - A. 6th century
   - B. 10th century
   - C. 14th century
   - D. 17th century

5. Krone was the basic unit of money in Austria between what years?
   - A. 1890-1946
   - B. 1892-1925
   - C. 1905-1953
   - D. 1883-1926

6. What American Commander was nicknamed *the Swamp Fox*?
   - A. Louise Nevelson
   - B. Francis Marion
   - C. John Dalton
   - D. Ethan Allen

7. All of the following would be considered a vermin, **EXCEPT**?
   - A. Beavers
   - B. Lice
   - C. Fleas
   - D. Mice

8. Where would one find a cowcatcher?
   - A. In a barn
   - B. The side of a car
   - C. The front of a locomotive
   - D. A school playground

9. River blindness is caused by a parasitic nematode worm passed on by the bite of a what?
   - A. Dragonfly
   - B. Stonefly
   - C. Mosquito
   - D. Blackfly

10. How many independent republics make up the Union of Soviet Socialist Republics?
    A. 15
    B. 9
    C. 11
    D. 7

11. Which of the following amounts do **NOT** equal a ream of paper?
    A. 480
    B. 320
    C. 500
    D. 516

12. What kind of ancestry is an Occidental of?
    A. African
    B. Asian
    C. European
    D. North American

13. What is the title name for the head of a convent of nuns?
    A. Abbot
    B. Caliph
    C. Hun
    D. Abbess

14. Which of the following would most likely be the age of a Camp Fire Girl?
    A. 5
    B. 3
    C. 9
    D. 6

15. What was the name of Pierre Curie's wife?
    A. Jane
    B. Marie
    C. Susan
    D. Tara

16. The former spelling of the word surly was originally used to describe a person who behaves in what way?
    A. Proud
    B. Irrational
    C. Cautious
    D. Sincere

17. Which layer of the ionosphere is most highly charged?
    A. E layer
    B. Exosphere
    C. D layer
    D. F layer

18. How many surrounding boroughs are in Greater London?
    A. 14
    B. 31
    C. 42
    D. 32

19. What type of food would most likely be served in a tureen?
    A. Sushi
    B. Finger sandwiches
    C. Chicken noodle soup
    D. Quesadilla

20. What type of plant does an abaca come from?
    A. Banana
    B. Cactus
    C. Fern
    D. Aloe

21. What date does the sun enter the Zodiac sign, Capricorn?
    A. November 22nd   C. March 21st
    B. December 22nd   D. July 23rd

22. A Whig tried to increase the power of what legislative body?
    A. The Monarch   C. The Senate
    B. Parliament   D. Supreme Court

23. What color are the flowers on a spring beauty?
    A. Blue   C. Yellow
    B. Green   D. Pink

24. Who did Jocasta unknowingly marry?
    A. Father   C. Father
    B. Cousin   D. Son

25. Which of the following foods is named after a seaport?
    A. Napoleon   C. Edam
    B. Mousse   D. Torte

26. What does the German word gesundheit translate to in English?
    A. Health   C. Wealth
    B. Blessed   D. Poor

27. Which of the following is Morse code for the number one?
    A. - - · - -   C. · - - - -
    B. · · · · · ·   D. - - - - · ·

28. What is the occupation of a plainclothesman?
    A. Mailman   C. Lawyer
    B. Police Officer   D. Pilot

29. How many lines of poetry are in a sestet?
    A. 4   C. 7
    B. 6   D. 10

30. Which chemical element has the atomic weight of 112.41?
    A. Niobium   C. Lutetium
    B. Terbium   D. Cadmium

31. What is the cause of gangrene in the body?
    A. Loss of blood   C. A broken tailbone
    B. Heart arrhythmia   D. Lack of Vitamin E

32. What day of the week is the Roman Catholic festival, Corpus Christi?
    A. Monday   C. Thursday
    B. Friday   D. Wednesday

_____ 33. lorn   A. a public official who examines financial accounts

_____ 34. rapport   B. the usually roundish pod of some plants

_____ 35. slam-bang   C. traveling from place to place

_____ 36. comptroller   D. having been abandoned or forsaken

_____ 37. itinerant   E. having fast-paced often nonstop action

_____ 38. tram   F. the end part of a bird's wing

_____ 39. boll   G. a cart or wagon running on rails

_____ 40. pinion   H. a friendly relationship

University Interscholastic League
2021-22 Dictionary Skills Contest
Invitational Test — Grades 7 & 8

Answer Key

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

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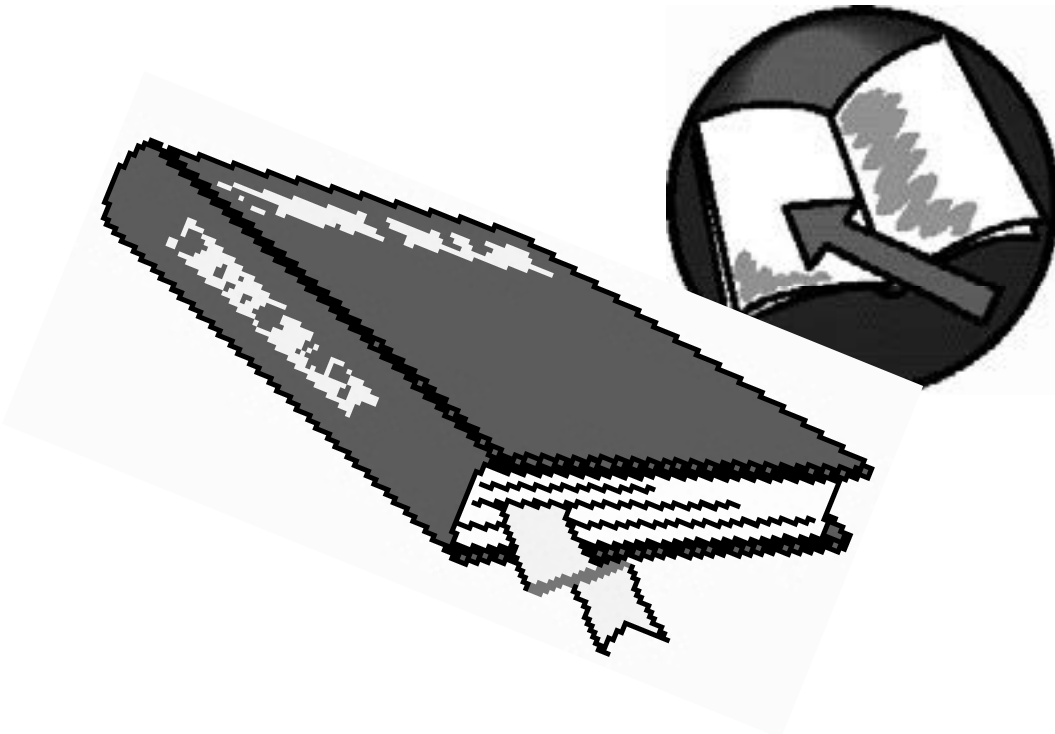
Dictionary Skills
grades 5 & 6

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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   C. The bottom of the ocean
    B. The top of Mt. Everest   D. A temple in the Sahara Desert

22. In old legends, nymphs can be found living in all of the following **EXCEPT**?
    A. Meadows   C. Sand Dunes
    B. Waters   D. Forest

23. Who was the founder of Georgia?
    A. Nathanael Greene   C. George Smith Patton
    B. John Charles Fremont   D. James Edward Oglethorpe

24. Which of the following chemical elements is the simplest and lightest of all chemical elements?
    A. Hydrogen   C. Nitrogen
    B. Iron   D. Carbon

25. What type of fungus is a death cap?
    A. Rust   C. Mold
    B. Mushroom   D. Yeast

26. What is the science that deals with measuring time and dating events?
    A. Geology   C. Anatomy
    B. Chronology   D. Botany

27. How does a mendicant make a living?
    A. Selling online   C. By begging
    B. Auctioning off cattle   D. State funding

28. Which of the following rivers flow into the Murray?
    A. Po   C. Parana
    B. Uruguay   D. Murrumbidgee

29. Trachoma is a serious contagious disease on what part of the body?
    A. Eye   C. Spine
    B. Foot   D. Liver

30. About how many joules equal the British thermal unit?
    A. 2005 joules   C. 1055 joules
    B. 1000 joules   D. 1005 joules

31. What year did Great Britain and the American colonies adopt the Gregorian calendar?
    A. 1750   C. 1580
    B. 1582   D. 1752

32. In legend Godiva roe through Coventry naked to save the citizens from what?
   A. The angry mob   C. A stampede
   B. A tax   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

A+ ACADEMICS

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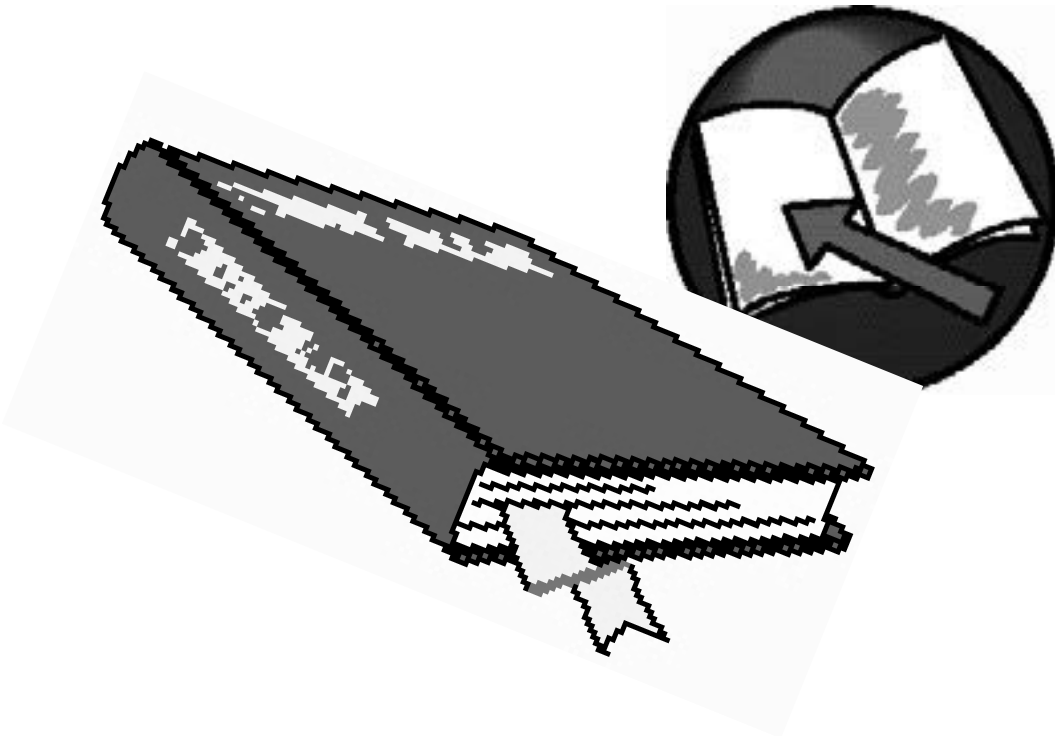
Dictionary Skills
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University Interscholastic League
2021-22 Dictionary Skills Contest
Fall/Winter District Test — Grades 7 & 8

1. Who or what is killed by a regicide?
   A. Alligators
   B. Flowers
   C. Rats
   D. A king

2. What year did Vatican City become the headquarters for the Pope?
   A. 1935
   B. 1929
   C. 1924
   D. 1940

3. How many rooms does a tenant that lives in an SRO have?
   A. 1
   B. 3
   C. 2
   D. 4

4. Which would most likely be the occupation of a coadjutrix?
   A. Bus river
   B. Administrative Assistant
   C. Barber
   D. Author

5. What was the title of the governor of Egypt from 1867-1914?
   A. Ali Baba
   B. Ottoman
   C. Khedive
   D. Dictator

6. All of the following are conic sections **EXCEPT**?
   A. Ellipse
   B. Tips
   C. Straight Lines
   D. Parabola

7. What type of international festival is held in Cannes, France?
   A. Folk
   B. Beer
   C. Fire
   D. Film

8. Which of the following best describes the type of writing in a squib?
   A. Sad
   B. Humorous
   C. Serious
   D. Dark

9. How much is an eagle worth in the U.S.?
   A. 10 dollars
   B. 25 dollars
   C. 100 dollars
   D. 1000 dollars

10. What is one doing if they are matriculating?
    A. Teaching a class
    B. Getting married
    C. Enrolling in school
    D. Running a marathon

11. Which of the following could be used to refrence natural selection?
    A. Index of refraction
    B. Angle of reflection
    C. Quality point average
    D. Survival of the fittest

12. How many main parts are usually in a sonata?
    A. 3-4
    B. 6-7
    C. 1-2
    D. 8-9

13. What color are the sacred stones in a Kaaba?
    A. Gold
    B. Black
    C. Pearl white
    D. Emerald

14. What two subjects are involved in the computer programing of Algol?
    A. Science and Government
    B. Mathematics and Science
    C. Fine Arts and Mathematics
    D. Social Studies and English

15. Who was the Author of the Star-Spangled Banner?
    A. Henri Matisse
    B. James Grover Thurber
    C. Francis Scott Key
    D. Thomas Edward Lawrence

16. An Authorized Version is a revision of what book made under King James I?
    A. The dictionary
    B. U.S. history book
    C. The Bible
    D. An atlas

17. Which of the following is most likely to have a bunghole?
    A. Saddle
    B. Trampoline
    C. Lifejacket
    D. Barrel

18. What device is used by players to search for a cache of items in the game of, geocaching?
    A. Metal detector
    B. GPS
    C. Compass
    D. Magnifying glass

19. Who did Goa district belong to before 1962?
    A. Portugal
    B. New York
    C. England
    D. Guatemala

20. Quechua is spoken in all of the following countries, **EXCEPT**?
    A. Peru
    B. Chile
    C. Ecuador
    D. El Salvador

21. What type of material is a daguerreotype produced on?
    A. Silk
    B. Rock
    C. Metal
    D. Paper

22. Which of the following is known as theatrical makeup?
    A. Painted lady
    B. Grease paint
    C. Gila monster
    D. Vena Cava

23. A quisling is named for Norwegian politician, Vidkun Quisling. Who did this politician help in World War II?
    A. Norwegian Spies
    B. German invaders
    C. American Pilots
    D. A Polish captain

24. All of the following months can be categorized under dog days, **EXCEPT**?
    A. June
    B. July
    C. August
    D. September

25. According to Norse mythology, who was taken to Valhalla by the Valkyries?
    A. Unborn children
    B. Elderly spirits
    C. Wounded animals
    D. Heroes killed in battle

26. Which of the following group of stars is the easiest to pick out?
    A. Ursa Minor
    B. Ursa Major
    C. Cassiopeia
    D. Orion

27. Shinto, is a religion native to what Asian country?
    A. Japan
    B. China
    C. Thailand
    D. Singapore

28. What symbol would be used specially to refer a reader to a note?
    A. Hieroglyph
    B. Ellipsis
    C. Asterisk
    D. Apostrophe

29. Which of the following is **NOT** a trademark?
    A. Crock-pot
    B. Orlon
    C. Lobster pot
    D. Frisbee

30. A person that is considered to be a skinflint, is a person who is very stingy with what?
    A. Food
    B. Money
    C. Land
    D. Time

31. How many steps would be in a 2-minute double time?
    A. 80
    B. 160
    C. 180
    D. 360

32. What can you find being made at a mint?
    A. Tokens
    B. Ice Cream
    C. Paper
    D. Wool blankets

Match each of the following words to its correct meaning:

_____ 33. pendulous   A. the upper part of a dress

_____ 34. bodice   B. to form a shape into wrinkles or folds

_____ 35. sachem   C. hanging so as to swing freely

_____ 36. inquest   D. a judicial or official investigation

_____ 37. ultima   E. not following a rule or regular course of action

_____ 38. corrugate   F. a vase shaped pitcher or jug

_____ 39. ewer   G. a North American Indian chief

_____ 40. wayward   H. the last syllable of a word

University Interscholastic League
2021-22 Dictionary Skills Contest
Fall/Winter District — Grades 7 & 8

Answer Key

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

A+ ACADEMICS

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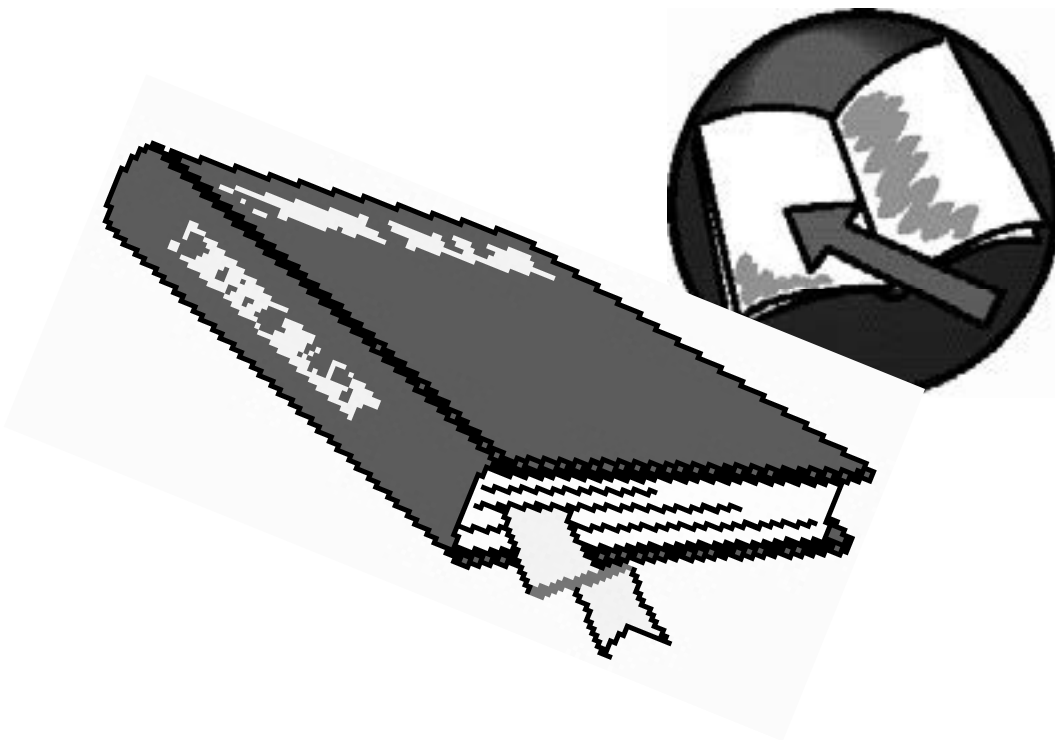
Dictionary Skills
grades 5 & 6

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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
   - B. Wax and crystal mixture
   - C. Lava from volcanoes
   - D. Sand that was hit my lightning

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

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

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

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

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

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

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

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

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

A+ ACADEMICS

University Interscholastic League
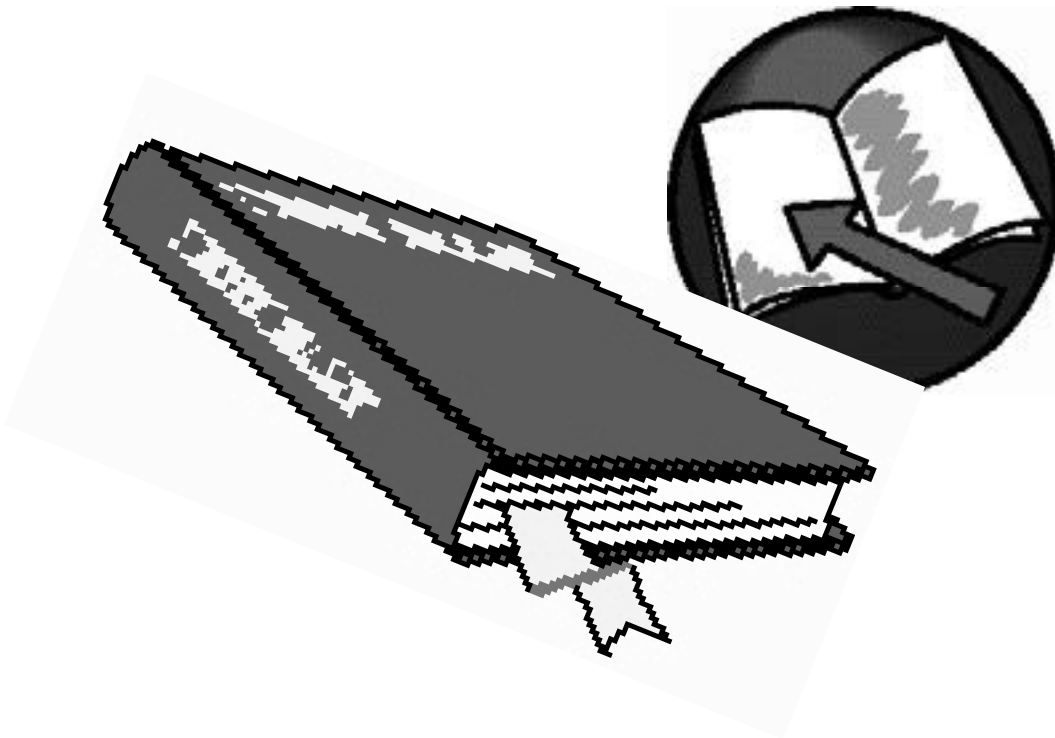
Dictionary Skills
grades 7 & 8

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

University Interscholastic League
2021-22 Dictionary Skills Contest
Spring District — Grades 7 & 8

1. According to geological history, what is the last period of the Mesozoic era?
   A. Permian
   B. Cretaceous
   C. Devonian
   D. Tertiary

2. What type of shape is twisted and turned to form a Mobius strip?
   A. Triangle
   B. Circle
   C. Octagon
   D. Rectangle

3. What causes the red tide to become poisonous?
   A. Sidewinder thrust
   B. Mealybugs
   C. Large numbers of dinoflagellates
   D. The breakdown of salt marsh

4. What year was the League of Nations replaced by the United Nations?
   A. 1944
   B. 1964
   C. 1946
   D. 1936

5. Which of the following is someone who waste money carelessly?
   A. Prodigal
   B. Geode
   C. Gadabout
   D. Stabler

6. What type of sound is a keen?
   A. Soft tapping
   B. Vibration
   C. Continuous cracking
   D. Loud wailing

7. Genuflecting is an act of showing what?
   A. War
   B. Respect
   C. Love
   D. Peace

8. Where would one find a pock?
   A. The interior of a car
   B. Fire ashes
   C. The skin
   D. The ocean

9. All of the following refer to being female, EXCEPT?
   A. Ewe
   B. Black widow
   C. Boar
   D. Dam

10. How many are in a baker's dozen?
    A. 13
    B. 10
    C. 12.5
    D. 14

11. When was the Julian calendar introduced in Rome?
    A. 1919
    B. 55 B.C.
    C. 1453
    D. 46 B.C.

12. What two languages is spoken by someone who is Creole?
    A. Spanish and Dutch
    B. French and Spanish
    C. Russian and Spanish
    D. Italian and English

13. The word *thug* was given by the British in what country, in the 19th century?
    A. Romania
    B. India
    C. Cuba
    D. Ireland

14. What form of currency is specie?
    A. Checks
    B. Dollar bills
    C. Coin
    D. Money order

15. How many atoms does bromine have, per molecule?
    A. 2
    B. 4
    C. 6
    D. 8

16. Spartan princess Leda courted Zeus in the form of what?
    A. A crane
    B. A unicorn
    C. A snake
    D. A swan

17. All of the following are synonyms for intention, **EXCEPT**?
    A. Purpose
    B. Design
    C. Objective
    D. Fortuity

18. Kwashiorkor is a disease of young children resulting from not getting enough what?
    A. Iron
    B. Protein
    C. Calcium
    D. Vitamin D

19. Which of the following is **NOT** a U.S. capital?
    A. Cheyenne
    B. Montgomery
    C. Cowpens
    D. Harrisburg

20. What type of animal would you find in an aerie?
    A. Bird
    B. Bear
    C. Otter
    D. Gorilla

21. Which of the following is considered to be a palindrome?
    A. 1234
    B. 5555
    C. 2424
    D. 2882

22. The harvest moon is the full moon nearest the time of what equinox month?
    A. October
    B. September
    C. November
    D. December

23. Which of the following hormones is linked to sleep?
    A. Insulin
    B. Melatonin
    C. Progesterone
    D. Cortisone

24. What year did Mao Zedong become the leader of People's Republic of China?
    A. 1949
    B. 1976
    C. 1893
    D. 1944

25. In what sport is a shuttlecock used?
    A. Polo
    B. Cricket
    C. Badminton
    D. Rugby

26. What is the name of the comic section of a newspaper?
    A. Happy times
    B. Funny pages
    C. Funny paper
    D. The tickles

27. Onomastics is the study of what?
    A. Bees
    B. Populations
    C. Historic events
    D. Names of people and places

28. All of the following are trademarks, **EXCEPT**?
    A. Baggies
    B. Realtor
    C. Frisbee
    D. Band-aid

29. In troy weight, how many grains are in a pound?
    A. 240
    B. 5760
    C. 60
    D. 480

30. How is a dauphin related to the king of France?
    A. Brother
    B. Uncle
    C. Son
    D. Grandfather

31. Which of the following states does **NOT** make up New England?
    A. New York
    B. Vermont
    C. Massachusetts
    D. Maine

32. What is the abbreviation for post exchange?
    A. Pex
    B. PTEX
    C. POX
    D. PX

Match each of the following words to its correct meaning:

_____ 33. turgid   A. a place or scene of uproar and confusion

_____ 34. dictum   B. a sheet or mass of floating ice

_____ 35. splay   C. any of several small insect-eating birds

_____ 36. floe   D. a short swift run

_____ 37. scuttle   E. a statement made with authority

_____ 38. bedlam   F. being in a swollen state

_____ 39. gelding   G. to spread out or apart

_____ 40. kinglet   H. a castrated animal

University Interscholastic League
2021-22 Dictionary Skills Contest
Spring Test — Grades 7 & 8

Answer Key

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

UIL

Editorial Writing
Evaluation Sheet

contestant #

In order to make this a complete learning experience, judges are asked to complete the evaluation sheet for students.

	FAIR	GOOD	EXCELLENT
The situation or problem is explained in the first two or three paragraphs.	❏	❏	❏
The writer takes an obvious stance in the first few paragraphs.	❏	❏	❏
The writer supports the stance through specific examples.	❏	❏	❏
The writer presents a logical solution or conclusion.	❏	❏	❏

What were the strong points of the editorial?

What were the weak points of the editorial?

What suggestions do you have for improvement?

Judge's Signature _____

UIL Editorial Writing

You are a reporter for the Leaguetown *Press*, the student newspaper of Leaguetown Middle School. From the given information, write an editorial as you would for the middle school newspaper. Remember that as an editorial writer you should support or oppose policy or action; you should not sermonize.

You have 45 minutes.

Do not write your name or the name of your school on this sheet or entry. Put your number in the upper right corner of each page of your entry.

STATEMENT OF SITUATION

Leaguetown Middle School is located in Central Texas and has an enrollment of 1,000 students in grades 6, 7 and 8.

For the past 20 years, students have elected Student Council officers and Student Council class representatives. Each second period class elects two Student Council representatives, and the entire school votes on Student Council officers.

After meeting with teachers, Principal Harrison Akins announced this week that next year second period teachers will select the two Student Council representatives from their class, instead of the class voting on them. Students will continue to vote on the officers.

Student Council officers must be in eighth grade and must have served as a class representative for at least one year.

"Several teachers and parents expressed concern that the Student Council representatives were always the most popular students, not necessarily the students who wanted to do the work to be a part of the Council," Akins said. "I think that is one of the reasons our Student Council has not been as effective as it could be."

Sixth grader Mina Shirmona said she agrees with the change.

"I want to be a Student Council officer when I am in eighth grade, but I am not popular," she said. "I didn't win class representative this year. A cheerleader and football player from my class won. They haven't even gone to a single Student Council meeting."

Several seventh grade Student Council representatives and the eighth grade officers said they do not agree with Harrison's change. They have asked him to reconsider his decision for next year.

"I've been involved in Student Council since third grade, and I want to continue," seventh grade Sam Guyton said. "I always ask my classmates to vote for me, and I attend every Council meeting. Now, if teachers pick the representatives, they will choose their pets. I am never the teacher's pet."

Student Council sponsor and English teacher Gwen Nguyen said she plans to create an application for class representatives and share it with the Student Council officers. "We will look at the whole student — grades, attitude, drive, etc.," she said. "Students should earn this position."

Principal Akins said he will meet next week with the Council representatives who do not agree with this new selection policy. "If they have other suggestions, I am willing to listen, but I am not happy with continuing with our current process."

STANCES

Supporting

Students elect Student Council officers, and they do that after a week-long campaign and hearing the candidate's speeches and promises. That makes sense. It doesn't make sense for second period classes to vote on class representatives without any campaigning or speeches. Students simply nominate their friends, and then two minutes later, the class votes. As a results, it's simply a popularity contest. Class representatives should be students who are willing to commit and do the work to improve the school.

Opposing

If Principal Akins wants to change how students select Student Council representatives then he should work with the Council to make those changes. Student Council represents the student body so the student body should select the representatives. With this change, teachers will choose their favorite students who may not represent all students.

JUDGING INSTRUCTIONS

In each contestant's editorial, please look for clarity of thought, and if the writer came to a clear conclusion. Remember that many of these writers have not been trained in proper editorial writing. Therefore key considerations should be that they have made a statement of the situation and formed a stance. They should back that stance with examples. Those examples do not have to come from the data sheet. The contestant then should come to a specific solution or recommendation.

Remember that for purposes of the contest these students go to Leaguetown Middle School. Contestants should not have to specify Leaguetown Middle School, because everyone reading the school paper knows where they go to school. Also, when they refer to the school board they do not have to say "Leaguetown School Board." Again, they know in what city they live.

Judging criteria has been developed to help you score the papers. The criteria are intended to help you evaluate the writing, not as a control over your background in editorial writing or the writing process.

SAMPLE EDITORIAL

This week, Principal Harrison Akins announced that second period classes will no longer elect Student Council representatives. Instead second period teachers will select the representatives.

Principal Akins need to rethink this change and allow students to vote for their Student Council class representatives.

Allowing teachers to select the representatives means that only "teacher's pets" will be on the Student Council. The Student Council is supposed to represent the students, not the teachers. Students should be able to select the students who will represent them.

Principal Akins said he thought this change would make the Student Council more productive, but that doesn't make a lot of sense. Student representatives are not the ones who make the big plans and decisions for the Student Council. The officers do that. Students will still vote on officers.

Plus before announcing the change, Principal Akins didn't ask the Student Council officers what they thought. He simply listened to teachers and a few parents, whose children probably didn't get elected. This new plan should have been discussed with the Student Council officers.

Those who support the change complain the current system is just a popularity contest. Maybe it is, but at least it's a student popularity contest. The new plan will be a teacher popularity contest. That is not any better.

Principal Akins said he is open to suggestions. If he is, then he should allow students who want to be class representatives to campaign for a week, like the Student Council officers. Then, students would have a chance to get to know the students who want to represent them.

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You have 45 minutes.

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STATEMENT OF SITUATION

Leaguetown Middle School is located in South Texas and has an enrollment of 800 students in grades 6, 7 and 8.

Currently the school has one 45-minute lunch for students. The cafeteria has three lunch lines and has seating for 700 students. Students also may eat in the outside courtyard and on the basketball courts in the back of the school. Both areas have picnic tables.

Principal Leesa Gupta announced last week that the school will move to two 30-minute lunches after winter break due to overcrowding the cafeteria.

"On nice days, the cafeteria is fine, but when it rains or it's cold outside, we can't fit all of the students in the cafeteria," Gupta said. "We have students sharing chairs and sitting on the floor. This is not acceptable."

Students also have complained to Gupta about the long lunch lines. Some students stand in line for 20-30 minutes to buy a lunch.

Student lunch periods will be determined by the location of their fourth period class. Students in A wing will eat A lunch, and students in B wing and the gym will eat B lunch.

Student Council officers and many students are opposed to the new lunch plan.

"Our lunch time is being cut in almost half," Student Council President Josh Bookmyer said. "We won't have enough time to eat or hang with our friends. Our days are stressful, and we need that time to hang out with our friends and let off steam."

Junior Tamika Brown said she doesn't want two lunches because she won't have lunch with any of her friends. She said she is in the B wing for fourth period, and her friends are in A wing.

"Lunch is when I get to see my friends," she said. "I barely have any friends in my classes, so lunch is our time together."

However, freshman Juan Moreno said he supports the move to two lunches.

"Whenever it rains, the cafeteria is crammed pack," he said. "I've had to eat on the floor more than once. I would rather have a shorter lunch and a seat.

Principal Gupta said she is open to new ideas, but the schools needs a solution to the lunchroom overcrowding issue.

STANCES

Supporting

Students should not have to eat lunch on the floor, nor should they have to wait in 30-minute lunch lines. Lunch is a time to decompress, but that is hard to do standing in a line or sitting on the floor to eat. Two lunches will solve both of these issues. While the lunch is shorter, students will actually get more time and space to relax and hang with their friends.

Opposing

Lunch is a time to eat, but it's also time for students to hang with friends. Cutting 15 minutes off lunch and separating students from their friends eliminates two of the main functions of the lunch period. Instead of breaking students into two lunches, Principal Gupta should look for an alternative lunch area when the weather is not good. In Texas, that's not too many days.

JUDGING INSTRUCTIONS
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over your background in editorial writing or the writing process.

SAMPLE EDITORIAL
    After winter break, the school will offer two 30-minute lunches, instead of one 45-minute lunch. Principal Leesa Gupta said she made the change because of overcrowding during lunch.

    Principal Gupta needs to ditch this plan and allow students to have one 45-minute lunch.

    Lunch is a time for student to decompress, relax and hang out with friends. With two lunches and 15 minutes less time, that will be harder for students. A 30-minute lunch is too short for students to get their food, eat and chill with friends. Everything will be rushed, and students will have no down time.

    Plus, students will be separated from their friends during lunch. With half of the school eating at one time and half eating at another, everyone will miss out on friend time. The two lunches are not even divided by grade level.

    Two lunches also means twice as much work for the cafeteria staff and the custodial staff. That doesn't seem fair for them.

    Those who support two lunches say the cafeteria is too crowded and the lines are too long. Simple solutions exist. Students could be allowed to eat in teacher classrooms, and the cafeteria staff could set up satellite lunch lines either outside or in the halls when the weather is bad.

    Principal Gupta said she is open to other ideas that will solve the lunch overcrowding problem, but she didn't bother to ask students before announcing her plan. We hope she listens now. Students need their 45-minute lunch.

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You have 45 minutes.

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STATEMENT OF SITUATION

Leaguetown Middle School is located in North Texas and has an enrollment of 1,300 students in grades 6, 7 and 8.

After repeated requests from club sponsors and student club members, Principal Davis Stephens has proposed adding a 30-minute club period after lunch on Tuesdays and Thursdays. Students would either attend a club meeting or go to a silent study hall in the cafeteria. Class time would be shorted by 5 minutes on those days to accommodate the club period.

Next week, students will vote on the club period in English class. If a majority of students vote for the club period, the new schedule will begin the following week.

Principal Stephens said he believes a club period would encourage more students to join clubs. "Research shows that students who are involved in school activities, other than regular classes, do better in school," he said. "I think a club period is a win-win situation for everyone."

Student Council club sponsor Glen Muñoz said he hopes students will vote for the club period. "Student Council needs this," he said. "With after school activities it is hard for our group to meet and accomplish our goals. We would like to plan a dance for the end of the school year, but that is hard to do when only a third of the club shows up for meeting because of other conflicts."

National Junior Honor Society President Jennifer Nickles said her organization would use one of the days to offer tutoring for students. "We would meet as a club on Tuesdays and then offer individual tutoring on Thursdays," she said. "We hope all of the students vote for the club period."

Sixth grade student Jessie Martinez said she doesn't think she will vote for the club period. "I am not involved in any clubs, so I would have to go to a silent study hall twice a week," she said. "That sounds like a punishment."

English teacher Beth Sykes also doesn't support the club period. "Teachers who don't sponsor a club will have to monitor the study hall," she said. "I won't know most of the students, and I suspect I will spend the entire 30 minutes telling students to be quiet. We need a better option for students who do not belong to a club."

Athletic Director Devon Trusse said he thinks the idea of a club period is a good one, but he would like to be able to meet with his athletes during that time. "It would be great if we could get another 30-minute workout twice a week," he said. "Right now, the plan is too restrictive."

STANCES

Supporting

Students who are involved in clubs are often in involved in multiple activities making it harder to attend club meeting because of schedule conflicts. This club period would allow students to meet with two of their clubs once a week. Clubs would be more productive and beneficial for the school and students if they were meeting regularly with the students.

Opposing

Not every student is involved in a club, and those who are not should not be punished with a 30-minute silent study hall. Basically, students who are not in a club have a 30-minute detention twice a week. The club period also takes away class time, and while five minutes doesn't seem like much, students would lose 40 minutes of class time per class every month. That's a lot of time.

JUDGING INSTRUCTIONS

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SAMPLE EDITORIAL

Students will vote next week on a 30-minute club period on Tuesday and Thursdays. Principal Davis Stephens proposed the club period after repeated requests from club sponsors and students.

Students should vote for the club period.

To create the time for the club period, Principal Stephens will take five minutes from each class period on Tuesdays and Thursdays. Students who don't want to attend a club meeting would attend a silent study hall.

The idea of this club period came from students and club sponsors. They requested it, and Principal Stephens listened.

The club period also would allow students to attend two different club meetings each week without having to come to school early or stay late. That is easier for students and parents. Also clubs could be more productive with this plan. The clubs would have more time to plan events for students, like a school dance. That would benefit all students.

Finally, a club period would encourage more students to join a club. Right now, clubs have to meet before or after school, and that doesn't work for some students. Having a time dedicated just for clubs would allow all students to find a club that they could join.

Those who are opposed to the club period say that they don't want to sit in a silent study twice a week. They don't have to. They can join a club. If they don't like the clubs that exist, they could even create a new club.

A club period could benefit all students and the school. Students shouldn't hesitate to vote "yes" next week.

Impromptu Speaking

EVALUATION SHEET

INSTRUCTIONS

Contestants should be evaluated and ranked based on effectiveness of delivery, organization of ideas and the overall impression of the speech. Students draw three topics and have three minutes to prepare a speech. The maximum time limit for speaking is five minutes. There is no minimum time limit. Topics may be serious or humorous in nature. Note cards may not be used during the presentation. 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. Judging decisions are an individual responsibility.

Speaker Number _____   **Speaker Name** _____

Section _____   **Topic** _____

CRITERIA

Evaluate the contestant in each category. Do NOT total these numbers to determine rank in the round. They are only designed to give the contestant an indication of strengths and weaknesses.

QUESTION	NEEDS WORK		GOOD	SUPERIOR	
1. Was the presentation organized clearly and effectively?	1	2	3	4	5
2. Was the speaker's delivery smooth and articulate?	1	2	3	4	5
3. Did the student have adequate eye contact?	1	2	3	4	5
4. Did the student have a creative approach to the topic?	1	2	3	4	5
5. Was the speaker poised and confident?	1	2	3	4	5
6. Did the speaker have vocal variety?	1	2	3	4	5
7. Was the speaker interested and enthusiastic?	1	2	3	4	5
8. Did the speaker communicate with the audience?	1	2	3	4	5

WRITTEN EVALUATION

Comments should be constructive and supportive.

Judge's signature _____

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Invitational
PRELIMINARY ROUND

1. A time when I felt empathy was...
2. My favorite day of the week is...
3. The coolest thing I ever built was...
4. If I could teach a school subject, it would be...
5. Forgiveness means...
6. The perfect sandwich consists of...
7. The last thing I was able to teach my parents was...
8. The best thing about my best friend is...
9. My favorite Halloween costume has been...
10. The perfect school lunch would be...
11. If I could communicate with any animal, it would be...
12. My favorite family tradition is...
13. A fairytale character I would bring to life would be...
14. The strangest place I have ever been...
15. A sound that annoys me the most is...

1. A time when I felt empathy was...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. My favorite day of the week is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. The coolest thing I ever built was...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. If I could teach a school subject, it would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. Forgiveness means...

6. The perfect sandwich consists of...

✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁

7. The last thing I was able to teach my parents was...

✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁

8. The best thing about my best friend is...

✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁

9. My favorite Halloween costume has been...

✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁ ✁

10. The perfect school lunch would be...

11. If I could communicate with any animal, it would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

12. My favorite family tradition is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

13. A fairytale character I would bring to life would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

14. The strangest place I have ever been...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

15. A sound that annoys me the most is...

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Invitational
FINAL ROUND

1. A rule my parents have that I don't agree with is…
2. Something the world needs the most right now is…
3. The best advice I ever received was…
4. If I was on a game show, it would be…
5. A charity I believe everyone should donate to is…
6. Something I look forward to when school starts is…
7. The best way to advertise a new product is to…
8. The characteristics that make a great friend are…
9. A time when I was most surprised was…
10. I believe the best way to handle stress is…
11. If I could trade lives with one person, it would be…
12. I would best describe my bedroom as…
13. I believe the way to make a great first impression is to…
14. A bad habit of mine that I want to break is…
15. If electronics didn't exist for a day, I would…

1. A rule my parents have that I don't agree with is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. Something the world needs the most right now is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. The best advice I ever received was...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. If I was on a game show, it would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. A charity I believe everyone should donate to is...

6. Something I look forward to when school starts is...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

7. The best way to advertise a new product is to...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

8. The characteristics that make a great friend are...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

9. A time when I was most suprised was...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

10. I believe the best way to handle stress is...

11. If I could trade lives with one person, it would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

12. I would best describe my bedroom as...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

13. I believe th way to make a great first impression is to...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

14. A bad habit of mine that I want to break is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

15. If electronics didn't exist for a day, I would...

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Fall/Winter District
PRELIMINARY ROUND

1. The toughest sport to play is…
2. If I won an award, it would be for…
3. An interest of mine that has now changed is…
4. A meal that I could eat everyday would be…
5. If I had a pen pal in another country, they would be from…
6. My favorite family story is…
7. The best birthday I have ever had was…
8. A healthy meal that I find delicious is…
9. The animal I believe makes the best pet is…
10. Something that makes me unique is…
11. A way I would give back to my community is…
12. A book I think everyone should read is…
13. The best school field trip I have been on was…
14. The saddest thing I have ever seen…
15. Something that can always be found in my food pantry is…

1. The toughest sport to play is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. If I won an award, it would be for...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. An interest of mine that has now changed is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. A meal that I could eat everyday would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. If I had a pen pal in another country, they would be from...

6. My favorite family story is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

7. The best birthday I have ever had was...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

8. A healthy meal that I find delicious is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

9. The animal I believe makes the best pet is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

10. Something that makes me unique is...

11. A way I would give back to my community is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

12. A book I think everyone should read is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

13. The best school field trip I have been on was...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

14. The saddest thing I have ever seen...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

15. Something that can always be found in my food pantry is...

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Fall/Winter District
FINAL ROUND

1. If I was a journalist, I would investigate…
2. My favorite era in history is…
3. A trend I believe should no longer exist is…
4. The way I would handle a rumor about me would be to…
5. If I had a fundraiser, I would sell…
6. After I graduate from high school, I plan to…
7. If I could change my name, I would change it to…
8. The best place that I have lived…
9. The challenges that can come with having a sibling are…
10. What I believe makes learning fun is…
11. If I was invisible, the first place I would go is…
12. A time when I felt like my efforts were not appreciated…
13. If I was a character in a video game, I would be…
14. If I planned a surprise party for a friend, it would be at…
15. I would describe my dream home as…

1. If I was a journalist, I would investigate...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. My favorite era in history is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. A trend I believe should no longer exist is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. The way I would handle a rumor about me would be to...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. If I had a fundraiser, I would sell...

6. After I graduate from high school, I plan to...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

7. If I could change my name, I would change it to...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

8. The best place that I have lived...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

9. The challenges that can come with having a sibling are...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

10. What I believe makes learning fun is...

11. If I was invisible, the first place I would go is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

12. A time when I felt like my efforts were not appreciated...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

13. If I was a character in a video game, I would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

14. If I planned a suprise party for a friend, it would be at...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

15. I would describe my dream home as...

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Spring District
PRELIMINARY ROUND

1. The hardest choice I made this year has been…
2. A way that I show my appreciation is by…
3. If I had a robot, I would make it…
4. Something that makes me feel safe is…
5. The top three things on my bucket list are…
6. I believe the best outdoor activity is…
7. I do/do not believe zoos are good for animals because…
8. I make a great friend because…
9. The best way to get to know a person is…
10. Something I am very devoted to is…
11. What my life will be like in twenty years…
12. The last time I had to apologize was for…
13. If I grew my own food, it would be…
14. I believe the best form of transportation is…
15. A pleasant dream I recently had was…

1. The hardest choice I made this year has been...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. A way that I show my appreciation is by...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. If I had a robot, I would make it...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. Something that makes me feel safe is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. The top three things on my bucket list are..

6. I believe the best outdoor activity is...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

7. I do/do not believe zoos are good for animals because...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

8. I make a great friend because...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

9. The best way to get to know a person is...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

10. Something I am very devoted to is...

11. What my life will be like in twenty years...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

12. The last time I had to apologize was for...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

13. If I grew my own food, it would be...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

14. I believe the best form of transportation is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

15. A pleasant dream I recently had was...

A+ IMPROMPTU SPEAKING TOPICS
2021-2022 Spring District
FINAL ROUND

1. The hardest part about getting older for me is…
2. I believe the most important leadership skills are…
3. The person that inspires me to be better is…
4. If I had a YouTube channel, it would be about…
5. A time when I learned from my mistakes was…
6. If an actor was to play me in a movie, it would be…
7. My idea of intelligence…
8. The last time I procrastinated was…
9. If I was saving money, it would be for…
10. I boost my self-esteem by…
11. What I love about my hometown is…
12. If school was all year round…
13. My favorite moment in sports history was when…
14. If I was a father or a mother for a day…
15. How I make the best of a bad situation is by…

1. The hardest part about getting older for me is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

2. I believe the most important leadership skills are...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

3. The person that inspires me to be better is...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

4. If I had a YouTube channel, it would be about...

✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂ ✂

5. A time when I learned from my mistakes was...

6. If an actor was to play me in a movie, it would be...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

7. My idea of intelligence...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

8. The last time I procrastinated was...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

9. If I was saving money, it would be for...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

10. I boost my self-esteem by...

11. What I love about my hometown is...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

12. If school was/wasn't year round...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

13. My favorite moment in sports history was when...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

14. If I was a father or a mother for a day...

✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄ ✄

15. How I make the best of a bad situation is by...

UIL LISTENING CONTEST - GRADES 7-8
INVITATIONAL 2021-2022
Contest Script- "Florence Kelley"

This has been a season of great change. Many people have called for social reform. This is not the first-time society has cried out for change, and it won't be the last. Florence Kelley was a voice for social reform one hundred years ago. Although this seems like a very long time ago, her influence is still felt today.

Florence Kelley was born on September 12, 1859 in Philadelphia, Pennsylvania. Her father, William D Kelley was an abolitionist, a founder of the Republican Party, a judge, and a longtime member of the US House of Representatives. Throughout her early years, her father read books to her that discussed the ideas of child labor and social injustice. She contributed her drive for social reform to the teachings of her father.

1:00 Her mother, Caroline Bartram Bonosall was related to the famous Quaker botanist, John Bartram. Unfortunately, Caroline's parents died when she was very young and she was adopted by Isaac and Kay Pugh. As a young girl, Florence spent many years visiting with her grandparents the Pughs. Her great-aunt, Sarah Pugh, lived as a Quaker and was vehemently opposed to slavery. As a result, when she learned that slave labor had been used in the production of cotton and sugar, Sarah refused to purchase or use them. This made a great impression on Florence. Sarah was also a strong advocate for women's rights and shared her beliefs with Florence freely.

Florence had two brothers and five sisters. Tragically, all five of her sisters died in childhood. Florence herself was often sick during her childhood years. She was highly susceptible to infections and was unable to go to school for weeks at a time. During the
2:00 time that she missed school, she could be found in her father's library reading. Most of the books she read dealt with the ills of society and societal reform. Because of this, she

developed an interest early on in education and women's rights. In 1882, at the age of 16, she entered Cornell University. While there, she was a Phi Beta Kappa member. Phi Beta Kappa is the oldest academic honor society in the United States. Phi Beta Kappa aims to promote and advocate excellence in the liberal arts and sciences.

3:00

Members of Phi Beta Kappa are selected on the basis of high academic achievement. While studying for her Master's degree, she wrote her thesis about disadvantaged children. This topic was directly influenced by her father's teaching about underprivileged children. Although she wanted to study law at the University of Pennsylvania, Florence was not allowed to attend because at that time, women were not allowed to study law there. In order to gain more understanding about the problems faced by working women, she began attending evening classes at the New Century Guild for Working Women.

After she graduated from Cornell, Florence moved to Europe to study at the University of Zurich, the first European university to grant degrees to women. While she was there, she met and married Polish-Russian medical student Lazare Wischnewetsky in 1884. They had 3 children. In 1891, Florence divorced Lazare because of his physical abuse and overflowing debt. She took her children and returned to Chicago. She kept her maiden name and was referred to as Mrs. Kelley.

4:00

Once she was settled in Chicago, Florence began working in the reform movement. One area that she continued to be interested in was labor conditions. From 1891 through 1899, Kelley lived at the Hull-House settlement which was founded by Jane Addams. Hull-House provided kindergarten and day care facilities for the children of working mothers.   It also aided women and immigrants in finding employment and conducted English and citizenship classes. Florence's father had taken her to visit glass factories at night when she was young. She saw the plight of children who were forced to work there. This inspired her to fight for the rights of children in the workplace.

At this time, it was considered normal for children from poor families to work in factories during the late-night shift. This caused the children to be exhausted and unable to attend

school. This disturbed Florence. She believed that children had the right to an education and should be nurtured to be intelligent people. This concern would affect the way Florence felt about labor and labor reform for the rest of her life.

5:00 While she was living and working at Hull House, Florence was hired to investigate the labor industry in the city. She was appalled by the conditions she discovered. She found that in what would become known as sweatshops, workers were forced to labor in overcrowded conditions for often 12 to 14 hours per day for very little pay. If workers complained, they were fired and unable to feed their families. In an effort to create change, Florence invited state legislators to tour the sweatshops. She persuaded labor reform groups to lobby the state representatives to create reform legislation.

In 1893, she became the first woman to hold statewide office. She was appointed by Governor Peter Altgeld as the Chief Factory Inspector for the state of Illinois. This position was created as a direct result of Florence's efforts, so she was the logical choice for the office. She chose five women and six men to assist her. She became known for her firmness and fierce energy. As inspector, Kelley, tried to force sweatshops to follow the rules to treat their employees better. She sued several businesses but did not win. She was then appointed Special Agent of the Illinois State Bureau of Labor Statistics.

6:00

She discovered that in an effort to get around state labor laws, some factories were participating in what she called the sweating system. This meant that factory owners were contracting out work to the homes of the poor. Workers were taking home unfinished work and spending up to 16 hours per day, seven days a week trying to complete their tasks with some wages that still weren't high enough to support the family. By 1893, the Illinois legislature had passed the first factory law limiting work for women to eight hours a day and making it illegal for children under the age of 14 to be employed.

7:00 Florence knew that she would be more effective if she was a lawyer, so she began attending Northwestern University School of Law in 1893. In 1895, she graduated with a

law degree and began a school for working girls in Pennsylvania. During the time she lived at Hull House, Florence had become friends with Frank Alan Fetter when he was asked by the University of Chicago to conduct a study of Chicago neighborhoods. Because of his influence, she was made a member of Cornell University's Irving Literary Society. This allowed her opportunity to become friends with many influential people who could further her cause of labor reform.

8:00 In 1899, Florence Kelley moved from Illinois to New York City. From 1899 through 1926, Kelley lived at the Henry Street settlement house. She founded and acted as General Secretary of the National Consumers League (NCL). Her work included lobbying to shorten standard workdays and increase the pay of workers. Her efforts resulted in the standardization of 10-hour workdays and some states adopting laws regarding minimum wages. The NCL created a Code of Standards regarding wages, hours worked, and a minimum number of bathrooms for workers.

While she was with the NCL, she also created the white label system. A white label status was given to stores that treated their employees fairly. People were asked to support the rights of workers by only shopping at businesses that had a white label. In other words, the public was asked to boycott businesses that did not adhere to good working conditions for their employees. This financial pressure led to changes in business practices for many companies. Kelley extended her white label system by sponsoring a

9:00 boycott on garments produced with child labor and working conditions against state law. Florence Kelly led the National Consumer's League until her death.

While Kelly was investigating labor conditions, she became aware of how different races were treated differently in the workplace. In 1909, she helped organize the NAACP, the National Association for the Advancement of Colored People. She also worked to end child labor. In 1911, she founded the National Labor Committee. She also joined the fight for women's rights as the Vice President of the National American Woman Suffrage Association. She was a founding member of the Women's International League for Peace.

Florence Kelley died on February 17, 1932, at the age of 72 in the Germantown section of Philadelphia, Pennsylvania. She is buried in the Laurel Hill Cemetery in Philadelphia. Florence Kelley spent her entire life fighting for better conditions for workers and equality for women and African Americans. Her influence is still being felt today.

INVITATIONAL 2021-2022

A+ ACADEMICS

University Interscholastic League

Listening
grades 7 & 8

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

"Florence Kelley"

1. Which of the following positions did William Kelly NOT hold during his lifetime?
   A. abolitionist
   B. founder of the Democratic party
   C. judge
   D. member of US House of Representatives

2. Florence had _____ (how many) siblings.
   A. 5
   B. 6
   C. 7
   D. 0

3. Why would it be important to know that Florence Kelly was a member of Phi Beta Kappa, the oldest academic honor society in the United States?
   A. It is the only honor society that focuses on liberal arts and science.
   B. It was an honor society that influenced her to become an activist.
   C. Its focus on academic excellence shows that she was highly intelligent.
   D. The honor society alumni financed her first stand against child labor.

4. Why did Florence Kelly begin attending evening classes at the New Century Guild for Working Women?
   A. to gain more understanding about the problems faced by working women
   B. to gain the skills she needed to get a job to support herself
   C. She wanted to meet people who would support her cause.
   D. Her father encouraged her to meet underprivileged people.

5. Who founded the Hull-House settlement?
   A. Jane Addams
   B. Florence Kelley
   C. Peter Altgeld
   D. Frank Eller

6. After she graduated from college, Florence continued her studies at
   A. Cornell University
   B. Northwestern University
   C. Philadelphia School of Law
   D. University of Zurich

7. What was the significance of a factory earning a white label?
   A. It meant that no children were used as laborers.
   B. It meant that the establishment treated its workers fairly.
   C. It stood for a clean, nontoxic workplace.
   D. It was a symbol that immigrant workers were employed at the factory.

8. In 1909, Florence helped organize the
    A. National Labor Committee
    B. National American Woman's Suffrage Association
    C. National Association for the Advancement of Colored People
    D. Woman's International League for Peace

9. In what way did Florence's aunt Sarah Pugh influence Florence's beliefs in activism?
    A. She boycotted products such as sugar and cotton produced by slave labor.
    B. She picketed in front of factories that used child labor for the night shift.
    C. She taught Florence about sweatshops and unfair labor practices.
    D. She read stories to Florence about honor and bravery.

10. While studying for her Master's degree, she wrote her thesis about
    A. women's rights   B. child labor laws
    C. racial inequity   D. disadvantaged children

11. What type of factory did Florence's father take her to visit when she was young to observe the plight of children who worked there?
    A. glass   B. paper
    C. clothing   D. textiles

12. Where did Florence attend law school?
    A. Pennsylvania School of Law
    B. University of Zurich School of Law
    C. Cornell University School of Law
    D. Northwestern University School of Law

13. In 1899, Florence Kelley moved from Illinois to
    A. Europe   B. Philadelphia, Pennsylvania
    C. New York City   D. Boston, Massachusetts

14. By 1893, the Illinois legislature had passed the first factory law which limited work for women to eight hours a day and made it illegal to hire children under the age of
    A. 13   B. 14
    C. 15   D. 16

15. In what year did Florence Kelley founded the National Labor Committee?
    A. 1910   B. 1911
    C. 1912   D. 1913

16. From 1899 through 1926, Kelley lived at the Henry Street settlement house where founded and acted as General Secretary of the
    A. National Consumers League
    B. Women's International League for Peace
    C. National American Woman Suffrage Association
    D. Cornell University's Irving Literary Society

17. Florence Kelley died on February 17, 1932, at the age of 72 in
    A. Chicago, Illinois   B. Philadelphia, Pennsylvania
    C. New York City, New York   D. Irving, Delaware

18. Florence's mother Caroline was related to the famous Quaker botanist
    A. Sarah Pugh   B. Frank Allen Fetter
    C. Peter Altgeld   D. John Bartram

True/False

19. During the time that she missed school because of illness, Florence read books that prepared her to become a physician to treat the poor and homeless.

20. Hull-House provided kindergarten and day care facilities for the children of working mothers as well as aiding women and immigrants in finding employment and conducted English and citizenship classes.

21. In 1893, she became the first woman to hold statewide office when she was appointed by Governor Peter Altgeld as the Chief Factory Inspector for the state of Illinois.

22. In an effort to create change in labor reform legislation, Florence invited state legislators to tour factories in which children worked the night shift.

23. Kelley's work resulted in the standardization of 8-hour workdays and some states adopting laws regarding minimum wages.

24. Although she wanted to study law at the University of Pennsylvania, Florence was not allowed to attend because at that time, women were not allowed to study law there.

25. During her work as an investigator, Florence found that in what would become known as prison factories, workers were forced to labor in overcrowded conditions without proper ventilation or hygiene facilities for often 12 to 14 hours per day for very little pay.

UIL LISTENING CONTEST - GRADES 7/8
INVITATIONAL MEET 2021-2022
ANSWER KEY

"Florence Kelley"

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

UIL LISTENING CONTEST - GRADES 7 & 8
FALL/WINTER DISTRICT 2021-2022

Contest Script- "What is Precipitation?"

This year has been a year full of unusual precipitation. Heavy rainfalls and massive snowstorms filled the weather reports during the spring, fall and winter months. The state of Texas received more snowfall than it had in many years. The spring brought record flooding. All this mention of precipitation got me thinking. What is precipitation and where does it come from? And why does it sometimes rain, but other times it snows? Let's find out.

One thing we know is that the air is full of water, even if we can't see it. We have all heard of the water cycle: evaporation, condensation, precipitation. Water is continually evaporating and condensing in the sky. In fact, if you look closely at a cloud you can see some parts disappearing while other parts seem to be growing. The disappearing is caused by evaporation. High up in the sky where the atmosphere is colder, the clouds

1:00 that seem to be growing are actually condensing water vapor into tiny liquid water droplets. As they float over our heads, the clouds are full of water vapor and droplets which are far too small to fall as precipitation. Most of the condensed water in clouds does not fall as precipitation because the updrafts that support the clouds is too strong. But, when cloud droplets become heavier than the updrafts can support, they can fall to the earth as rain, snow, sleet, or hail – all forms of what we call precipitation.

In order for precipitation to happen, the tiny water droplets must first condense on even tinier particles of dust, salt, or smoke. These act as a nucleus. In fact, these particles are called condensation nuclei because they provide a surface for the water vapor to condense on. A nucleus is the center of a cell or object – in this case, a drop of precipitation. Once the water droplet has formed, it can grow as a result of collision with

2:00 other particles of water. If enough collisions occur, the droplet will grow large enough to fall out of the cloud as precipitation. This is no small task, however, since millions of

cloud droplets are needed to produce a single raindrop. Another way for droplets to grow large enough to fall from the clouds is through the Bergeron-Findeisen process. The Bergeron-Findeisen process describes what happens when ice crystals grow in the clouds. This happens in mixed phase clouds – clouds that contain both ice crystals and supercooled liquid water droplets. Supercooled liquid water droplets exist in the liquid form at temperatures less than 0 degrees Celsius (32 degrees Fahrenheit). If this happens, water molecules from many liquid droplets will condense on a single ice crystal.

3:00 Once ice crystals have formed within a supercooled cloud, they continue to grow as long as their temperature is colder than freezing. When the crystals become large enough, they fall as snow, or melt and fall as rain. In fact, most rain actually begins as snow high in the clouds. As the snowflakes fall through warmer air, they become raindrops.

One common misconception is that raindrops fall in a teardrop shape. However, this is seldom the case. Smaller raindrops that are approximately 1 millimeter across are almost perfect spheres – similar to a round ball. Large raindrops, those that are approximately 2-3 millimeters across, are spherical, but have a small indention on the bottom. They are shaped more like kidney beans than teardrops or like a hamburger bun with a flat bottom and round top. Raindrops don't stop growing at 3 millimeters, though. Raindrops that are larger than 4 millimeters across have a huge indention in the bottom and are actually shaped more like a parachute. These extra-large drops usually end up splitting into two **4:00** smaller droplets before hitting the ground. The indention on the bottom of raindrops is caused by the resistance to air as they fall.

It is surprising to realize the number of gallons of water that actually fall from the sky during a rainstorm. One inch of rain falling on one acre of land contains 27,154 gallons of water. In fact, precipitation is responsible for depositing most of the fresh water on our planet. Approximately 114,600,000 gallons of water falls as precipitation each year. No matter where precipitation originates, it always falls as fresh water. Even water that originates from the ocean falls as fresh water because the sea salt does not evaporate

with the water. You can demonstrate this by mixing salt in water and then boiling it away. The salt is left even after the water is gone. I'm sure you wondering, then, if precipitation always falls as fresh water, why we have precipitation labeled acid rain. Acid rain is caused when pollutants in the atmosphere contaminate water droplets before they fall to the earth. Acid raid is not as frightening as it sounds. It does not hurt people

5:00 directly, but it can make bodies of fresh water more acidic. This causes harm to the ecosystems that exist in the water because the plants and animals have difficulty adapting to the increased acid in the water.

Another interesting fact about precipitation is that it does not fall in the same amounts throughout the world, in a country, or even in a city. Here in Texas, yearly precipitation rates vary widely. In Austin, the yearly average of precipitation is 34.2 inches while in Midland the average is 14.6. In El Paso the average is 9.6, but at the Sam Rayburn Lake Dam, the yearly precipitation averages 58.9! In other states the difference between cities is not as wide. In Georgia, it rains fairly evenly all year with an average of 40-50 inches per year. However, between states it can be vastly different. In Las Vegas, Nevada, the yearly average is only 4.3 inches! The world's record for average annual rainfall belongs to Mt. Waialeale, Hawaii, where it averages about 450 inches per year. In fact, one year they had 642 inches of rain! That's starkly different from Arica, Chile where no rain fell

6:00 for 14 years! However, Mawsynram in India receives the highest average annual rainfall in the world.

As mentioned earlier, precipitation takes many shapes and sizes. Although rain and snow are probably the most well-known types of precipitation, there are others. What makes the difference? The temperature of the cloud and the temperature of the air between the cloud and the ground are what create different types of precipitation.

As you know, rain is made of liquid water droplets that fall when temperatures in the air and at the surface of the ground are above freezing. Rain can start as water droplets or ice crystals in a cloud, but it always falls as liquid water. Hail is created in thunderstorms.

7:00 Hail is balls of ice that fall from the clouds. Because of the distance they fall, by the time they reach the ground, hailstones have such a great velocity that they can put dents in cars, break windows, and do all kinds of damage. Hail is formed when water droplets form in the cloud and get pushed upward where the temperatures are colder instead of falling immediately down. The droplets freeze and form hailstones. These hailstones will grow larger as more water droplets freeze on them and eventually become heavy enough to fall to the ground.

To be classified as a hailstone, the ice balls must be at least 5 millimeters in diameter, although they can be much larger. In fact, the largest recorded hailstone to fall to earth was recorded on July 23, 2010 in Vivian, South Dakota. Les Scott found the hailstone that measured 8 inches in diameter and weighed 2 pounds. To put that in perspective, it was nearly the size of a volleyball! The icy precipitation known as sleet forms when a thin layer of warmer airs comes between layers of cold air. The top layer contains below freezing air. This causes water droplets to form into ice crystals. But, as they fall through a warmer layer of air, they begin to melt. Then as they leave that warmer layer and fall through colder air toward the ground, they begin to re-freeze and fall as sleet.

8:00

Many people use the term sleet when they refer to a mix of rain and snow. However, that rain/snow mix is actually called snain. Sleet is more like ice pellets. It's very similar to hail, but much smaller – less than 5 millimeters in diameter, and forms in different weather conditions. Freezing rain is another winter occurrence and probably the most dangerous for pedestrians and motorists. Freezing rain begins and falls just like regular rain. But, if the temperature of the air at the surface is below freezing, as soon as it hits the ground, it freezes!

Like sleet, freezing rain usually starts as snowflakes, and then falls through a warm layer in the atmosphere where it turns into rain. It refreezes when it touches surfaces that are below freezing temperatures. It's telltale mark is that "glazed donut" effect on cars and sidewalks, and is what downs tree limbs and power lines. Graupel is a frosty kind of snow

9:00 – kind of like a slushy. Snow crystals in the clouds collide with very cold water droplets. The water droplets freeze loosely onto the snow making it wet and slushy. What? You've never heard of graupel? It's a real thing and looks a lot like sleet or small hailstones, but the small balls are made of snow, not ice, and they are white. They almost look like tiny Styrofoam pellets. The final kind of precipitation is snow. Snow falls when all the air between the cloud and the Earth's surface is below freezing.

On a side note, there are a couple of quirky kinds of water in the atmosphere that are not considered precipitation. We know that precipitation occurs when a portion of the atmosphere becomes saturated with water vaper and then condenses and precipitates. But consider fog and mist. Does fog or mist become rain? Actually, fog and mist are not precipitation at all. They are called suspensions because the water vapor does not condense and then precipitate.

Precipitation is certainly not as simple as it seems. Next time you are in the middle of a weather event, stop and think of all the things that work together to create precipitation.

A+ ACADEMICS

University Interscholastic League

Listening
grades 7 & 8

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

UIL LISTENING CONTEST - GRADES 7-8
FALL/WINTER DISTRICT MEET 2021-2022
TEST

"What is Precipitation?"

1. What is the result of the updraft in the water cycle?
    A. it causes condensed water to rise into the cloud layer
    B. it prevents condensed water from falling back to the earth
    C. it condenses evaporated water into water droplets
    D. it creates hail out of evaporated water

2. How many gallons of water fall in one inch of rain falling on one acre of land?
    A. 27,154 gallons
    B. 29,752 gallons
    C. 9,268 gallons
    D. 36, 591 gallons

3. In order for precipitation to happen, what is the first thing to happen to the tiny water droplet?
    A. It must split into two even tinier particles to form droplets.
    B. It must reach a temperature of more than 32 degrees Fahrenheit.
    C. It must grow as a result of collision with other droplets.
    D. It must condense on a tiny particle such as dust or smoke.

4. Small raindrops that are approximately 1 millimeter across fall in the shape of a
    A. teardrop
    B. parachute
    C. sphere
    D. kidney bean

5. Why does precipitation always begin to fall as fresh water?
    A. Only fresh water sources are able to be evaporated.
    B. Water will not condense into droplets if it has impurities in it.
    C. When water evaporates, it leaves the impurities behind.
    D. Saltwater is too heavy to evaporate.

6. In Georgia, it rains fairly evenly all year with an average each year of
    A. 30 – 40 inches
    B. 40 – 50 inches
    C. 50 – 60 inches
    D. 20 – 30 inches

7. A frosty, slushy kind of snow that resembles Styrofoam pellets is known as
    A. snain
    B. sleet
    C. graupel
    D. slosh

8. Hail is formed when_____.
      A. water droplets form in the cloud and get pushed upward where the temperatures are colder instead of falling immediately down.
      B. water droplets freeze immediately when condensed and fall through warmer air before reaching the ground.
      C. the air surrounding the water droplet becomes supercooled.
      D. a thin layer of warmer airs comes between layers of cold air.

9. The largest hailstone ever recorded was _____ inches in diameter.
      A. eight   B. nine
      C. ten   D. eleven

10. The world's record for average annual rainfall belongs to
      A. Arica, Chile   B. Mt. Waialeale, Hawaii
      C. Mawsynram, India   C. San Jose, Costa Rica

11. Which of the following could NOT be the nucleus for precipitation?
      A. smoke   B. dust
      C. acid   D. salt

12. The Bergeron-Findeisen process describes what happens when
      A. ice crystals grow in the clouds   B. sleet turns to hail due to cooling
      C. water turns to steam   C. salt is removed from water

13. Sleet falls in the form of ice pellets and is always
      A. heavier than raindrops when it falls
      B. less than 5 millimeters in diameter
      C. formed by rain freezing as it falls
      D. caused by hailstones colliding

14. Approximately how many gallons of water falls as precipitation each year?
      A. 114,600,000   B. 126,400,000
      C. 134,500,000   D. 128,900,000

15. Which of the following is NOT a form of precipitation?
      A. rain   B. snow
      C. sleet   D. mist

16.   When does freezing rain freeze?
      A. in the upper atmosphere   B. as it falls through the clouds
      C. between the clouds and the ground   D. when it hits the ground

17. Snow falls when
    A. the air above the clouds is freezing
    B. the air between the cloud and the ground is freezing
    C. it falls between a layer of warm air and a layer of cold air
    D. it leaves the cloud as rain but freezes as it falls to the ground

18. The particles that act as the nucleus which allows a drop of precipitation to form
    are called _____ nuclei.
    A. evaporation   B. precipitation
    C. condensation   D. reaction

True/False
19. Supercooled liquid water droplets exist in the liquid form at temperatures less than
    0 degrees Celsius (32 degrees Fahrenheit).

20. The largest recorded hailstone to fall to earth was recorded on July 23, 2010 in
    Vivian, South Dakota and was nearly the size of a volleyball.

21. Most rain actually begins as sleet high in the clouds and then melts as it falls
    through the atmosphere.

22. When clouds disappear in the sky, this is caused by evaporation, but when clouds
    are high up in the sky where the atmosphere is colder, they seem to be growing
    because they are condensing water vapor into tiny liquid water droplets.

23. In Austin, the yearly average of precipitation is 14.6 inches while at the Sam
    Rayburn Lake Dam, the yearly precipitation averages 58.9.

24. Acid rain is caused when pollutants in the atmosphere contaminate water droplets
    as they fall to the earth, damaging crops, sickening humans and animals, and
    making bodies of fresh water more acidic.

25. Fog and mist are called suspensions because the water vapor does not condense
    and then precipitate.

"What is Precipitation?"

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

Have you ever tried to swim to the bottom of a swimming pool? It's not too hard, but definitely something you want to do when other people are around. How about swimming to the bottom of a lake? This is pretty dangerous and should not be attempted unless you have scuba gear and permission from adults. What about swimming to the bottom of the ocean? Could you swim there? Would you want to? Where exactly is the deep end of the ocean? Let's find out.

Somewhere between Hawaii and the Philippines in the Western Pacific just east of the Mariana Islands near the small island of Guam, far below the surface of the water, sits the deepest spot in the ocean: a crescent shaped trough known as Mariana Trench. The Mariana Trench contains the deepest known points on Earth. Vents found there bubble up liquid sulfur and carbon dioxide, and active mud volcanoes hiss and steam.   The Mariana Trench is 1,580 miles long — which is more than five times the length of the Grand Canyon. However, the narrow trench averages only 43 miles wide. The Mariana

1:00 Trench is part of a global network of deep troughs that cut across the ocean floor.

Because the Mariana Trench is on the bottom of the ocean, it seems odd that it would belong to any specific country. Since it is located close to Guam which is a US territory, as well as the Northern Mariana Islands which are a US Commonwealth, the United States has jurisdiction over the Mariana Trench. In fact, President George W Bush established the Mariana Trench Marine National Monument in 2009. This monument created a protected marine reserve which contains approximately 195,000 square miles. This includes areas around three islands, most of the Mariana Trench, and 21 underwater volcanoes.

The Mariana Trench has several distinct sections. The Challenger Deep is located in the southern end and is the deepest spot in the ocean. Because it is extremely difficult to

2:00 measure from the bottom of the trench to the level of the sea, the exact depth estimates

have been known to vary slightly. The first depth measurements were made in 1875 by the British ship H.M.S. Challenger, which was used by the Royal Navy. They recorded the depth as 26,850 feet. In 1951, another Royal Navy vessel, also named the "HMS Challenger," returned to the area for additional measurements. They discovered an even deeper location with a depth of 10,900 meters (35,760 feet) determined by echo sounding. The Challenger Deep was named after the Royal Navy vessel that made these measurements.

In 2009, sonar mapping done by researchers aboard the RV Kilo Moana, operated by the University of Hawaii, determined the depth to be 35,994 feet. The National Oceanic and Atmospheric Administration used sound waves in 2010 and pegged the bottom at 36,070 feet. In 2012, James Cameron descended to the bottom of Challenger Deep in the mini-submarine vessel Deepsea Challenger. Afterwards, the submersible was later donated to the Woods Hole Oceanographic Institution. Cameron measured the trench to be 35,756 **3:00** feet.

A high-resolution seafloor mapping survey published in 2013 by researchers from the University of New Hampshire said the Challenger Deep bottoms out at 36,037 feet. Regardless of the exact measurements, can we all agree that the Challenger Deep is really, really deep? It is so deep in fact that the weight of all that water above makes the pressure in the Trench 1000 times higher than it would be in Miami or New York. Temperatures are just above freezing, and everything is drowning in darkness. The crushing water pressure on the floor of the trench is more than 8 tons per square inch (703 kilograms per square meter). This is the equivalent of having 50 jumbo jets piled on top of a person.

The ocean's second-deepest place is also in the Mariana Trench. It is known as the Sirena Deep. The Sirena Deep is 124 miles east of the Challenger Deep and has measured 35,462 feet deep. If you wanted to compare this with something you are familiar with, Mount Everest stands 29,026 feet above sea level. That means if you flipped Mount **4:00** Everest upside down, it would still be more than 6,000 feet from the sea floor.

You might be wondering how such a deep ditch was formed in the bottom of the sea. Scientists tell us that the Mariana Trench was created where two huge slabs of ocean crust collide. This point of collision is called the subduction zone. One piece of oceanic crust is pushed and pulled underneath the other so deeply that it sinks into the Earth's mantle. The mantle is the layer under the crust that sits between the crust and the core. In the mantle, the temperatures range from about 200 degrees Celsius where it touches the crust to approximately 4000 degrees Celsius where it reaches the boundary of the core. Because of this temperature difference, as the slabs of crust are forced into the mantle, they begin to move in a circular motion. Hot material moves upward while cooler material sinks downward.

5:00 Nicholas van der Elst, a seismologist at Columbia University's Lamont Doherty Earth Observatory says that "at subduction zones, the cold, dense crust sinks back into the mantle and is destroyed." It is an intersection like this that formed the Mariana Trench. The Pacific Ocean crust is forced below the Philippine crust. The Pacific crust, also called a tectonic plate, is significantly older and larger than the Philippine plate. The Pacific crust plate is about 180 million years old where it dives into the trench. One interesting fact is that although the trench is extremely deep, it is not the spot closest to the center of the Earth. Because the Earth bulges at the equator, the radius at the poles is about 16 miles (25 km) less than the radius at the equator. So, parts of the Arctic Ocean seabed are closer to the Earth's center than the Challenger Deep.

6:00 The first-time humans descended into the Challenger Deep was in 1960. Jacques Piccard and Navy Lieutenant Don Walsh used a U.S. Navy submersible - a bathyscaphe - called the Trieste. It took five hours to reach the bottom. Because the dive had disturbed the bottom of the trench, they were unable to see well enough through the silt to take photographs. They stayed there only 20 minutes. Until this dive, scientists had long held the idea that life could not exist under such extreme pressure.

But while at the bottom of the trench, the Trieste's floodlight shined on a creature that appeared to be a live, moving flatfish. This experience changed the scientific opinion and laid to rest any doubts that life could exist under such great pressure. But, there is still

little information about the types of organisms that exist there. Scientists still believe that due to the extreme pressure, calcium can't exist freely, so the bones of vertebrate organisms would dissolve. In more recent years, deep-ocean dredges and unmanned subs have glimpsed exotic organisms such as shrimp-like amphipods and strange, translucent animals called holothurians and other mysterious animals found nowhere else in the world like the Dumbo octopus, Barreleye fish, and Deep Sea Dragon Fish.

7:00 In 2017, scientists reported they had collected specimens of an unusual creature they named the Mariana Snailfish, which lives at a depth of about 26,200 feet. The snailfish's small, pink and scaleless body hardly seems capable of surviving in such a difficult environment, however, it appears to dominate in this ecosystem, going deeper than any other fish and gobbling up the invertebrate prey that inhabit the trench.

More recently, in 2020, a Russian exploration vessel called Vityaz spent three hours in the trench. The remarkable feature about this vessel is that it was remotely operated. It was the first vessel to be used to explore the trench without humans aboard.

'Unfortunately, the deep ocean also has a problem. It is not safe from manmade problems such as pollutants and litter. In a recent study, a research team led by Newcastle University shows that human-made chemicals including nuclear wastes that **8:00** were banned in the 1970s are still lurking in the deepest parts of the ocean. Cameron and the Deepsea Challenger reported seeing candy wrappers and plastic lying on the trench floor. Organisms tested there still contain nuclear residue. It is shocking and saddening that human carelessness is affecting even the deepest parts of our world. Perhaps someday this will change. The mysterious Mariana Trench is definitely worth protecting.

A+ ACADEMICS

University Interscholastic League

Listening
grades 7 & 8

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

UIL LISTENING CONTEST - GRADES 7-8
SPRING DISTRICT 2021-2022
TEST

"Mariana Trench"

1. How long is the Mariana Trench?
   - A. 4,360 miles
   - B. 1,580 miles
   - C. 2,570 miles
   - D. 3,620 miles

2. The first depth measurements were made by the British ship H.M.S. Challenger, a ship used by the Royal Navy, in
   - A. 1902
   - B. 1951
   - C. 1875
   - D. 1896

3. The ocean's second-deepest place is also in the Mariana Trench and is known as
   - A. Sirena Deep
   - B. Trieste
   - C. Woods Hole
   - C. Philippine Canyon

4. What is the range of temperatures for the mantle from the edge of the crust to the boundary of the core? (in Celsius)
   - A. 100 to 3000 degrees
   - B. 200 to 4000 degrees
   - C. 300 to 4500 degrees
   - D. 350 to 5000 degrees

5. The first two humans to descend into the Challenger deep were Jacques Piccard and Navy Lieutenant
   - A. Nicholas van der Els
   - B. Kilo Moana
   - C. Don Walsh
   - D. Robert Trudeau

6. In 2017, scientists reported they had collected specimens of an unusual creature they named the _____, which lives at a depth of about 26,200 feet.
   - A. holothurians
   - B. Trench amphipod shrimp
   - C. deep water flatfish
   - D. Mariana Snailfish

7. In 2009, President George W Bush established the
   - A. Mariana Trench Marine National Monument
   - B. Northern Mariana Islands Commonwealth
   - C. National Oceanic and Atmospheric Administration
   - D. Guam Islands Marine Reserve

8. Vents found in the bottom of the Mariana Trench bubble up
    A. liquid sulfur and oxygen   B. carbon dioxide and volcanic ash
    C. volcanic mud and lava   D. liquid sulfur and carbon dioxide

9. The width of the Mariana Trench averages _____ miles wide.
    A. 40   B. 43
    C. 45   D. 48

10. In 2009, sonar mapping which determined the depth to be 35,994 feet was
     accomplished by researchers from
     A. National Oceanic and Atmospheric Administration
     B. the Royal Navy
     C. the University of Hawaii
     D. the United States Coast Guard

11. The place where the Mariana Trench was created by the collision of two huge slabs
     of ocean crust is called the
     A. tectonic crash   B. melting point
     C. subduction zone   D. overlay

12. Approximately how old is the Pacific crust plate where it dives into the trench?
     A. 40 million years old   B. 180 million years old
     C. 120 million years old   D. 200 million years old

13.   Who descended to the bottom of Challenger Deep in 2012, using a mini submarine
      vessel, Deepsea Challenger?
      A. James Cameron   B. Don Walsh
      C. Jacques Piccard   D. Lamont Doherty

14.   What did the National Oceanic and Atmospheric Administration use in 2010 to
      measure the depth of the Challenger Deep?
      A. a mini-submarine   B. depth charges
      C. sound waves   D. deep sea floor mapping

15. How long did it take for the first humans to descend to the bottom of the Mariana
     Trench in 1960?
     A. 5 hours   B. 7 hours
     C. 9 hours   D. 15 hours

16. Which organism seems to dominate the ecosystem in the Trench?
   A. Dumbo octopus   B. Barreleye fish,
   C. Deep Sea Dragon Fish   D. Mariana Snailfish

17. How far apart are the two deepest sections within the Mariana Trench?
   A. 103 miles   B. 124 miles
   C. 138 miles   D. 152 miles

18. What was the remarkable feature of the Vityaz?
   A. depth perception   B. speed
   C. remotely controlled   D. strength under pressure

True/False

19. The Mariana Trench lies between the Philippines and Guam in the Western Pacific just east of the Mariana Islands near the cluster of islands known as Hawaii.

20. Since it is located close to Guam which is a US territory, as well as the Northern Mariana Islands which are a US Commonwealth, the United States has jurisdiction over the Mariana Trench.

21. If you wanted to compare the second deepest trench in the ocean with Mount Everest, you could flip Mount Everest upside down, and it would just graze the ocean floor.

22. The radius of the Earth at the poles is about 16 miles (25 km) less than the radius at the equator resulting in parts of the Arctic Ocean seabed being closer to the Earth's center than the Challenger Deep.

23. The Mariana Trench protected marine reserve which contains approximately 195,000 square miles including areas around three islands, most of the Mariana Trench, and 21 underwater volcanoes.

24. The Trench is so deep that the weight of the water makes the pressure in the Trench 1000 times higher than it would be in Miami or New York.

25. New information about life on the bottom of the trench has begun to change the minds of scientists who up until recently believed that due to the extreme pressure, calcium couldn't exist freely, so the bones of vertebrate organisms would dissolve at that deep of distance.

UIL LISTENING CONTEST - GRADES 7-8
SPRING DISTRICT 2021-2022
ANSWER KEY

"Mariana Trench"

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

INVITATIONAL 2021-2022
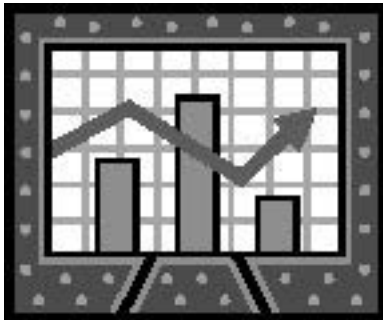
A+ ACADEMICS

University Interscholastic League

Maps, Graphs & Charts
grades 7 & 8

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

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Australia

1. The two longest rivers on the continent are in what area of Australia?
   a. Northeast
   b. Southeast
   c. Northwest
   d. Southwest

2. Most of Indonesia receives how much precipitation per year?
   a. 0 to 250 millimeters per year
   b. 500 to 1000 millimeters per year
   c. 1000 to 2000 millimeters per year
   d. Over 2000 millimeters per year

3. On the Australia Political Relief Map, what does the star locating Brisbane, Australia indicate?
   a. National Capital
   b. State or territory capital
   c. National historical site
   d. Population over 500,00

4. The Coral Sea Islands are a territory of what country?
   a. Australia
   b. Indonesia
   c. New Zealand
   d. Philippines

5. Which of the following is the oldest continuous culture?
   a. Aborigines
   b. Melanesians
   c. Micronesians
   d. Polynesians

6. Honiara is the capital of what country?
   a. Federated States of Micronesia
   b. Indonesia
   c. Kiribati
   d. Solomon Islands

7. Which of the following land features sits on the Tropic of Capricorn?
   a. Red River
   b. Australian Alps
   c. Gibson Desert
   d. Great Victoria Desert

8. What resource can be found in New Caledonia?
   a. Uranium
   b. Nickel
   c. Lead
   d. Coal

9. Which of the following cites in New Zealand has the largest population?
   a. Christchurch
   b. North Cape
   c. Oamaru
   d. Palmerston North

10. Which of the following lies between the Philippines and Malaysia?
    a. Taiwan Strait
    b. Sulu Sea
    c. South China Sea
    d. Bass Strait

11. What is the most prevalent climate type in Australia?
    a. Tropical Rain Forest
    b. Savanna
    c. Desert
    d. Marine

12. What is the elevation of Mt. Ossa in Tasmania?
    a. Over 10,000 feet
    b. Between 5,000 and 10,000 feet
    c. Between 2,000 and 5,000 feet
    d. Under 2,000 feet

13. What country's capital can be found at 105.9° E?
    a. Nauru
    b. China
    c. Cambodia
    d. Thailand

14. Land use in New Zealand is mainly of what type?
    a. Urban
    b. Subsistence Farming
    c. Ranching
    d. Commercial Farming

15. Where is Eighty Mile Beach located?
    a. Eastern Australia
    b. Western Australia
    c. Eastern Indonesia
    d. Western Indonesia

Lasso County Precinct And Polling Locations Map

Legend:
- ● Early Voting and Election Day
- ★ Election Day Only
- ⬭ Rural Road
- ⬭ Interstate Hwy

1 inch = 2 miles

N

Precinct 1
Precinct 2
Precinct 3
Precinct 4
Precinct 5
Precinct 6
Precinct 7
Precinct 8
Precinct 9

Sands
Northington
Capital City
Chandler
Troy
Smithville
Terrace

48
38
324
318
26
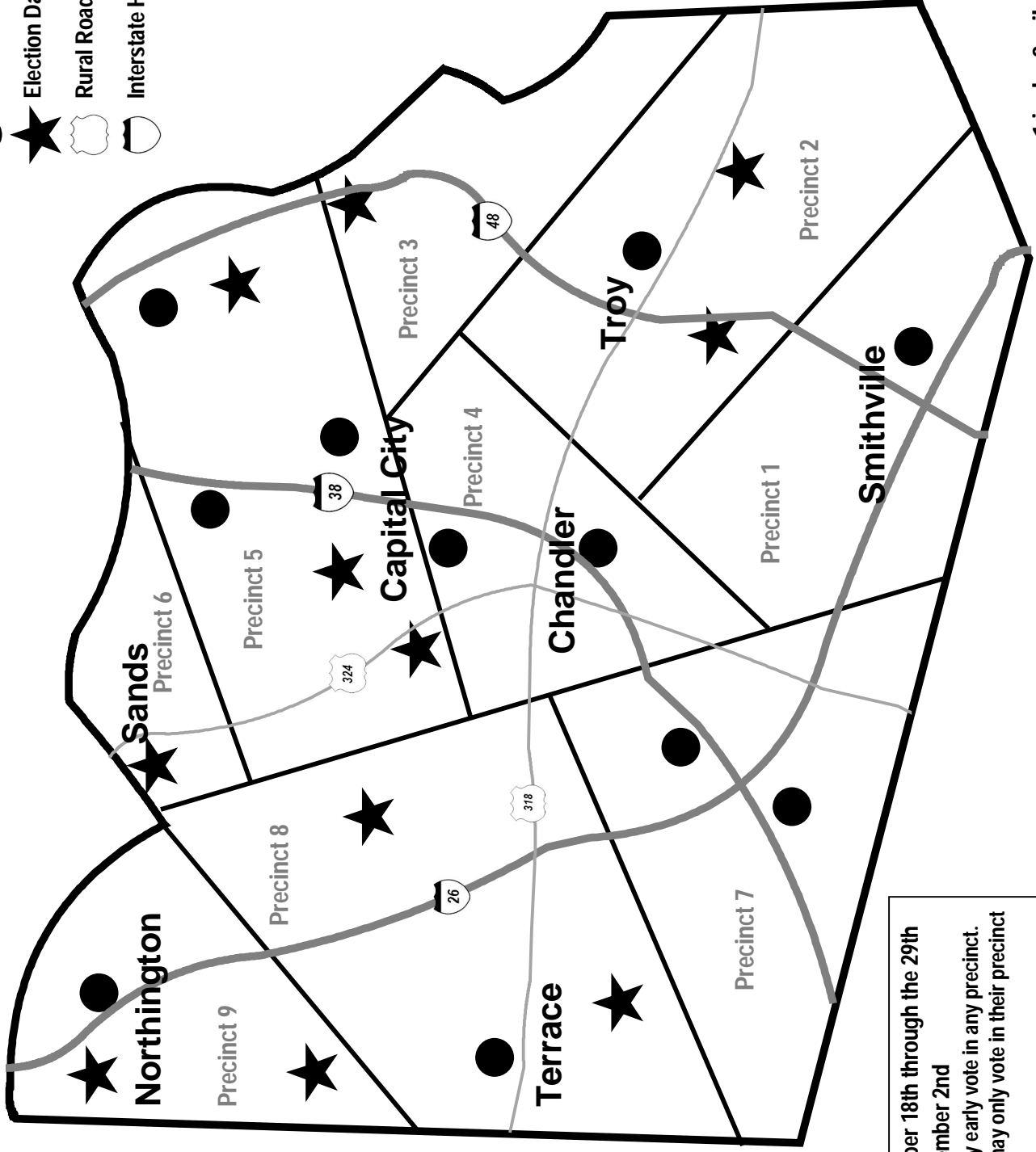
Early voting: October 18th through the 29th
Election day: November 2nd
County residents may early vote in any precinct.
Election day voters may only vote in their precinct
of residence.

Lasso County Precinct and Polling Locations Map

16. How far is it Smithville to Chandler?
    a. About 2 miles
    b. About 3 miles
    c. About 5 miles
    d. About 7 miles

17. The thin grey lines that run across the map indicate what?
    a. Precinct boundary
    b. County boundary
    c. Interstate Highway
    d. Rural Road

18. What is the most direct route from Chandler to Capital City?
    a. Heading south on Interstate 38
    b. Heading north on Rural Road 318
    c. Heading south on Rural Road 324
    d. Heading north on Interstate 38

19. What is the last day of early voting?
    a. October 18th
    b. October 29th
    c. November 2nd
    d. Not indicated

20. How many polling places are open on October 18th in Precinct 9?
    a. 0
    b. 1
    c. 2
    d. 3

21. What town is the furthest south on the map?
    a. Northington
    b. Capital City
    c. Terrace
    d. Smithville

22. Which precinct has the fewest early voting locations?
    a. Precinct 2
    b. Precinct 7
    c. Precinct 5
    d. Precinct 4

23. What city is located near the intersection of Interstate Highways 48 and 26?
    a. Capital City
    b. Troy
    c. Smithville
    d. Sands

24. How many of the indicated roadways run west to east?
    a. 0
    b. 1
    c. 2
    d. 3

25. How many polling places will be open on election day in Precinct 5?
    a. 3
    b. 6
    c. 7
    d. 10

TRUE/FALSE

26. During the early voting period, residents in Precinct 5 may vote in Precinct 4.

27. All precincts in the county have early voting.

28. Interstate 26 intersects all other roadways on the map.

29. The star near Capital City indicates the state capital.

30. On election day, Precinct 5 will have at least double the amount of voting locations as any other precinct.

Poll Volunteers and Precinct Voting Totals
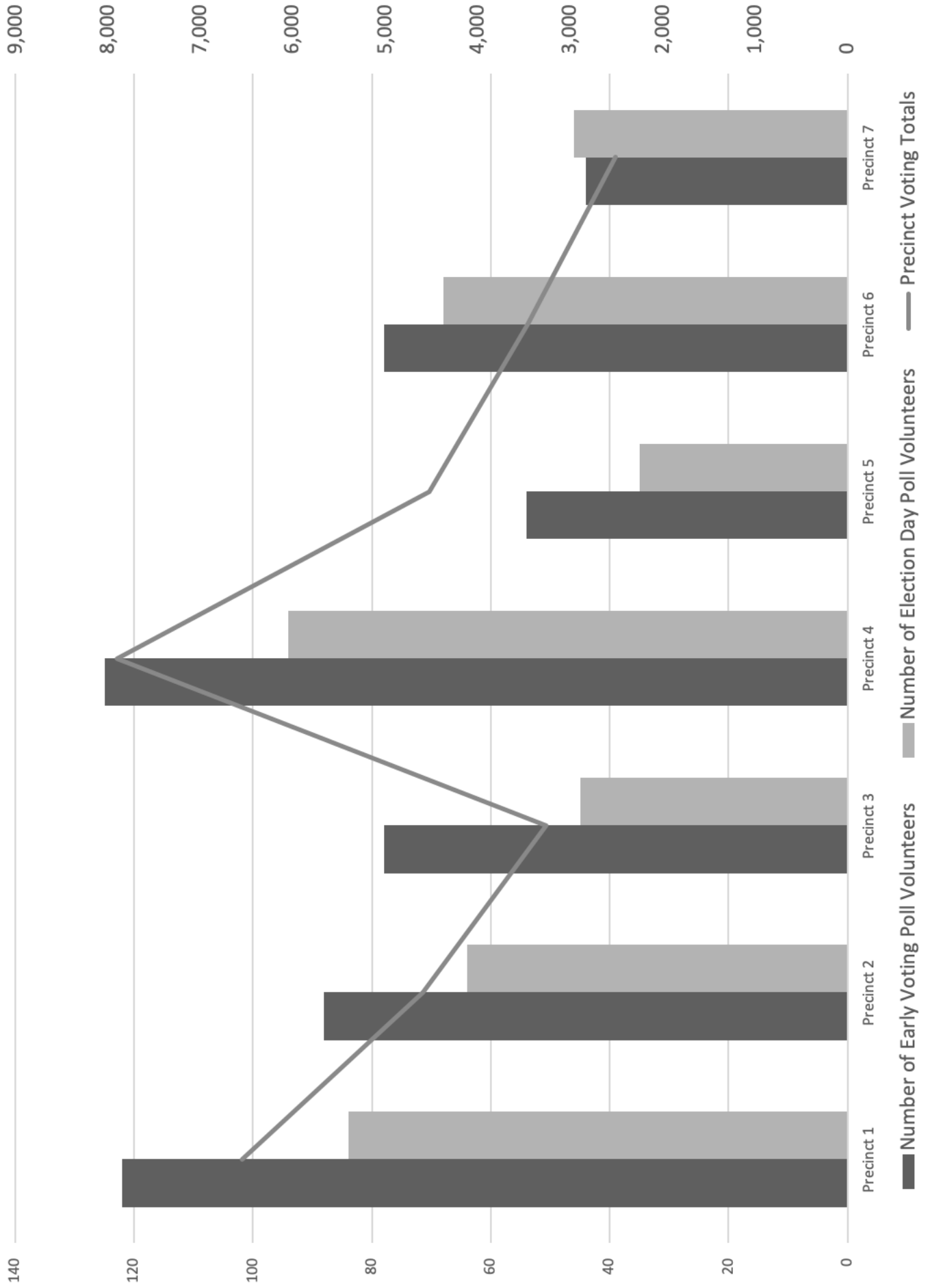
Poll Place Volunteers and Voting Totals

31. How many precincts are represented?
    a. 1
    b. 5
    c. 7
    d. 14

32. What does the line represent?
    a. Precinct number
    b. Total number of volunteers
    c. Election day volunteers only
    d. Votes cast in a precinct

33. In how many precincts were there more election day volunteers than early voting volunteers?
    a. 0
    b. 1
    c. 4
    d. 7

34. Which precinct had the most early voting volunteers?
    a. Precinct 2
    b. Precinct 3
    c. Precinct 5
    d. Precinct 7

35. What was the highest amount of voters in a single precinct?
    a. 120
    b. 7894
    c. 2
    d. Cannot be determined based on the chart

36. Which precinct had the highest percentage of early voters?
    a. Precinct 1
    b. Precinct 4
    c. Precinct 6
    d. Cannot be determined based on the chart

37. Which precinct had the highest combined total of volunteers?
    a. Precinct 1
    b. Precinct 2
    c. Precinct 4
    d. Precinct 6

38. What does the lighter column represent?
    a. Precinct number
    b. Early voting volunteers
    c. Election day volunteers
    d. Votes cast in precinct

39. What precinct had the largest difference in the number of the two kinds of volunteers?
    a. Precinct 1
    b. Precinct 2
    c. Precinct 4
    d. Precinct 5

40. How many precincts had fewer than 40 early voting volunteers?
    a. 0
    b. 1
    c. 2
    d. 4

TRUE/FALSE

41. The precinct with the highest total of volunteers also had the most votes cast.

42. Precinct 5 had the lowest number of volunteers in both categories.

43. The lowest number of votes was cast in Precinct 2.

44. Precinct 1 had more than double the amount of total volunteers as Precinct 5.

45. The difference between the precinct with the highest amount of votes cast and the precinct with the lowest amount of votes cast was more than 5,000.

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Asia

46. Which country's territories do not extend into another continent?
    a. Indonesia
    b. Mongolia
    c. Russia
    d. Turkey

47. What land formation is part of the northern border of Nepal?
    a. Ganges River
    b. Himalayas
    c. Hindu Kush
    d. Zagros Mountains

48. Sand dunes are not found in which of the following countries?
    a. China
    b. India
    c. Tajikistan
    d. Yemen

49. What created the Himalayas?
    a. Colliding plates
    b. Volcanic activity
    c. Receding ocean
    d. None of the above

50. In how many months does Mumbai, India receive more rain than Kuala Lumpur, Malaysia?
    a. 0
    b. 2
    c. 4
    d. 8

51. How many of the world's top ten oil producing nations are located in Asia?
    a. 0
    b. 2
    c. 5
    d. All 10

52. Which of the following countries is the least densely populated?
    a. China
    b. Japan
    c. Mongolia
    d. Thailand

53. What body of water lies off of Turkmenistan's western border?
    a. Caspian Sea
    b. East China Sea
    c. Sea of Okhotsk
    d. Bay of Bengal

54. What city with a population of over one million can be found at 59.6° E
    a. Zahedan
    b. Arbil
    c. Mashhad
    d. Kanpur

55. The Grand Canal can be found in the eastern area of what country?
    a. China
    b. India
    c. Iraq
    d. Philippines

TRUE/FALSE

56. Islam is the predominant religion in Indonesia

57. India has a disputed border with a neighboring country.

58. Mediterranean is the main climate type of Asian countries on the equator.

59. The elevation of the capital of Iran is between 10,000 to 20,000 feet.

60. Sri Lanka has two capitals.

County Voting Totals By Type

Legend: ■ Registered Voters ⬚ Early Voters ▥ Election Day Voters ▦ Mail In Voters

Y-axis: 0, 5,000, 10,000, 15,000, 20,000, 25,000, 30,000, 35,000, 40,000, 45,000

X-axis: 2004, 2008, 2012, 2016, 2020
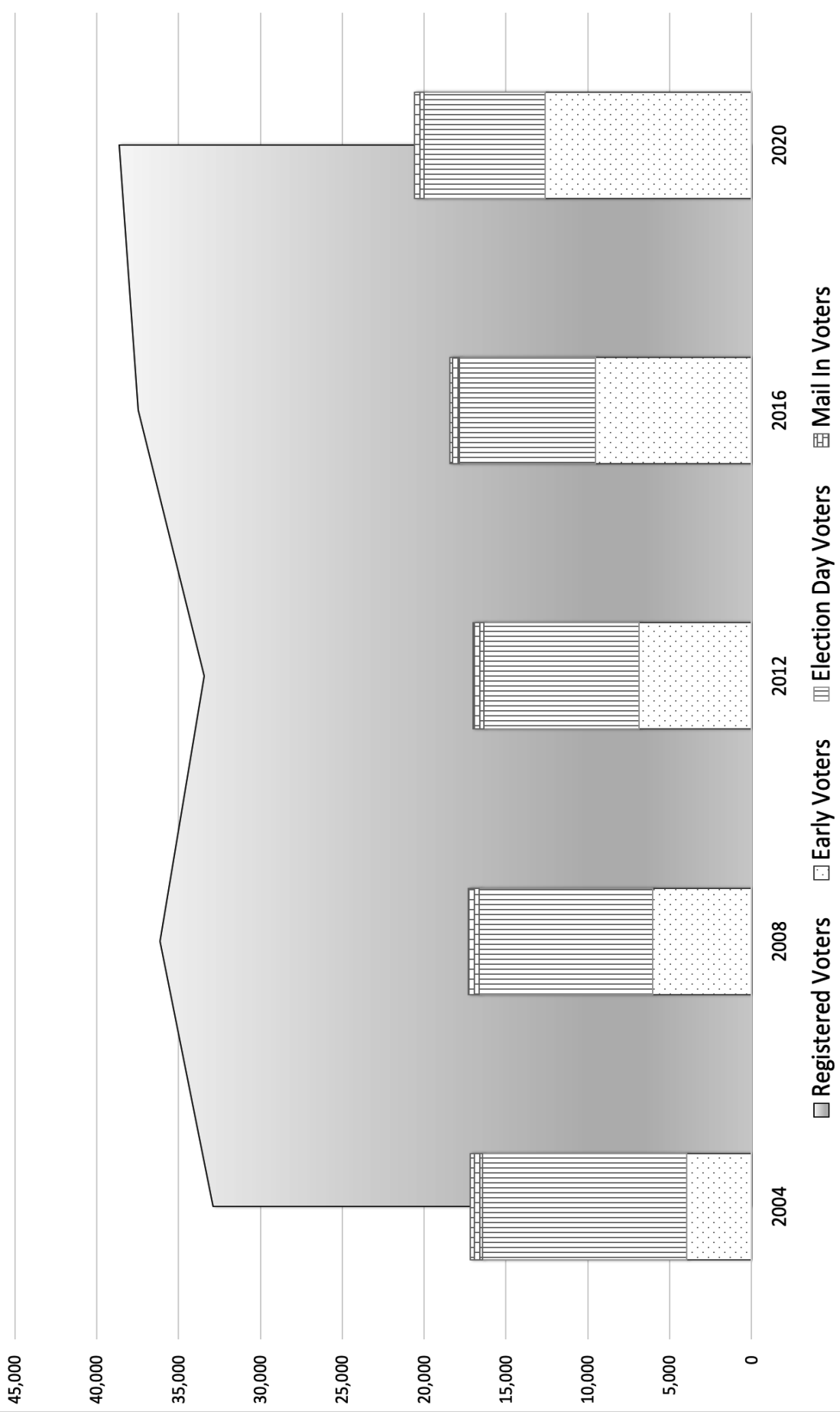
County Voting Totals By Type

61. What does the shaded area represent?
    a. Election Day Voters
    b. Early Voters
    c. Mail In Voters
    d. Registered Voters

62. How many categories of citizens who actually voted are there?
    a. 0
    b. 1
    c. 3
    d. 4

63. What year had the most total voters?
    a. 2004
    b. 2008
    c. 2016
    d. 2020

64. Which category of voter always had the lowest numbers?
    a. Election Day Voters
    b. Early Voters
    c. Mail In Voters
    d. Registered Voters

65. What year had the highest amount of election day voters?
    a. 2004
    b. 2008
    c. 2016
    d. 2020

66. What does each column represent?
    a. Registered voters in a given year
    b. Total number of actual voters in a given year
    c. Election day voters in a given year
    d. None of the above.

67. Which of the following categories had the smallest variation in the years shown on the graph?
    a. Election Day Voters
    b. Early Voters
    c. Mail In Voters
    d. Registered Voters

68. How many times did the number of early voters increase compared to the previous election?
    a. 0
    b. 1
    c. 2
    d. 4

69. How many times did the number of actual voters go over 20,000?
    a. 0
    b. 1
    c. 2
    d. 3

70. Which category of actual voters had the highest numbers in 2012?
    a. Election Day Voters
    b. Early Voters
    c. Mail In Voters
    d. Registered Voters

TRUE/FALSE

71. More than half of the registered voters voted in 2020.

72. The number of registered voters is represented on the x axis.

73. The trend across the graph is for election day voter numbers to go up as early voter numbers go down.

74. Early voter numbers surpassed election day voter numbers for the first time in 2016.

75. The chart covers five elections over sixteen years.

University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
7/8 Invitational District
Answer Key

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

University Interscholastic League
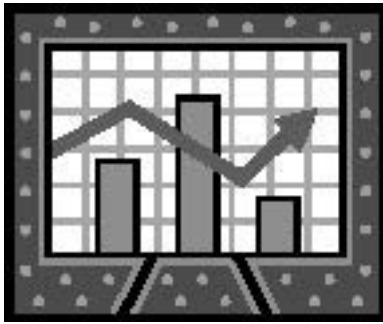
Maps, Graphs & Charts

grades 7 & 8

**DO NOT OPEN TEST
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South America

1. Of what type is the majority of land use in Argentina?
   a. Urban
   b. Commercial farming
   c. Ranching or herding
   d. Forestry

2. What country has a series of canals on its eastern coast?
   a. Brazil
   b. Uruguay
   c. Venezuela
   d. Argentina

3. The second longest river on the continent runs through what country?
   a. Colombia
   b. Bolivia
   c. Paraguay
   d. Chile

4. On average, which country receives the most amount of rain?
   a. Bolivia
   b. Chile
   c. Suriname
   d. Ecuador

5. The Galapagos Islands are a territory of what country?
   a. Brazil
   b. Venezuela
   c. Argentina
   d. Ecuador

6. Which of these Brazilian rivers has waterfalls?
   a. Aripauna river
   b. Tapajos river
   c. Jurua river
   d. All of the above

7. Which of the following does not have shores on the Caribbean Sea?
   a. Brazil
   b. Colombia
   c. Venezuela
   d. All of the above

8. The Guri Reservoir is in what country?
   a. Argentina
   b. Venezuela
   c. Colombia
   d. Paraguay

9. Which of the following cites in Bolivia has the largest population?
   a. Tarija
   b. Oruro
   c. Santa Cruz
   d. El Alto

10. Iron can be found in what country?
    a. Paraguay
    b. Venezuela
    c. Suriname
    d. Uruguay

11. Which country has two capitals?
    a. Bolivia
    b. Ecuador
    c. French Guiana
    d. All of the above

12. The small blue symbols on the land cover map indicate what?
    a. Sand dunes
    b. Mountain peaks
    c. Wetlands
    d. None of the above

13. What city can be found at 13.53° S, 71.96° W?
    a. Maraba, Brazil
    b. Barinas, Venezuela
    c. Cusco, Peru
    d. Cayenne, French Guiana

14. Which country's capital is located in the middle of tundra land cover?
    a. Bolivia
    b. Ecuador
    c. Suriname
    d. Uruguay

15. The least densely populated country is located on what part of the continent?
    a. East
    b. West
    c. North
    d. South

Capital City Downtown District

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
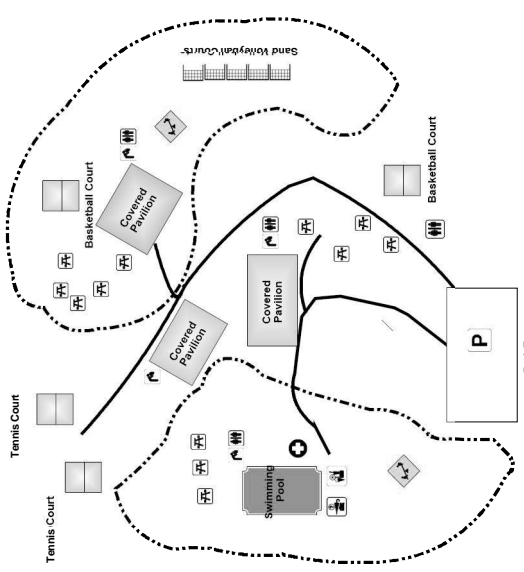
Insert Legend

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

Sand Volleyball Courts

Basketball Court

Covered Pavilion

Covered Pavilion

Covered Pavilion

Tennis Court

Tennis Court

Basketball Court

Swimming Pool

P

Park Entrance

Orchid Street (One Way)

1 inch = 100 feet

N E S W

I.H. 95

8th Street

7th Street

Blue Line

6th Street

Davis Street

Payne Street

Morris Street

Foster Street

Stevens Street

Flowers Street

Orchid Street

Sharp Street

Rose Avenue

5th Street

Green Line

4th Street

Capital City Park

Park Entrance

Red Line

N E S W

Legend

- Airport
- Bus Station
- Tram Station
- H Hospital
- Tram Line
- Highway

Capital City Downtown District and Park Complex

16. How many tram lines are indicated on the map?
    a. 0
    b. 1
    c. 2
    d. 3

17. The park entrance is located on what street?
    a. Orchid Street
    b. 4th Street
    c. Ross Avenue
    d. Davis Street

18. How far is it from the parking lot to the pool?
    a. About 50 feet
    b. About 200 feet
    c. About 300 feet
    d. About 400 feet

19. What time does the park close?
    a. 8 a.m.
    b. 6 p.m.
    c. 8 p.m.
    d. Not indicated

20. How many picnic areas are located east of the sand volleyball courts?
    a. 0
    b. 1
    c. 2
    d. 3

21. How many tram stations are located at the intersection of two tram lines?
    a. 0
    b. 1
    c. 2
    d. 3

22. How many bus stations are indicated in the insert?
    a. 0
    b. 1
    c. 2
    d. 3

23. Which of the following is located on 8th street?
    a. Bus station
    b. Airport
    c. Tram station
    d. All of the above

24. Where is the first aid station located?
    a. West of the swimming pool
    b. East of the swimming pool
    c. North of the swimming pool
    d. South of the swimming pool

25. Which mode of transportation has a station nearest the park entrance?
    a. Bus
    b. Tram
    c. Airplane
    d. Cannot be determined

TRUE/FALSE

26. There are more tennis courts than basketball courts on the map.

27. There are only two highways indicated on the map.

28. The Blue Line runs west and east.

29. The only first aid station in the park is located next to the pool.

30. The park is located southwest of the airport.

Capital City Park Visitors

Legend: January, February, March, April, May, June, July, August, September, October, November, December

Years: 2014, 2015, 2016, 2017, 2018, 2019, 2020

Y-axis: 0, 200, 400, 600, 800, 1000, 1200, 1400, 1600
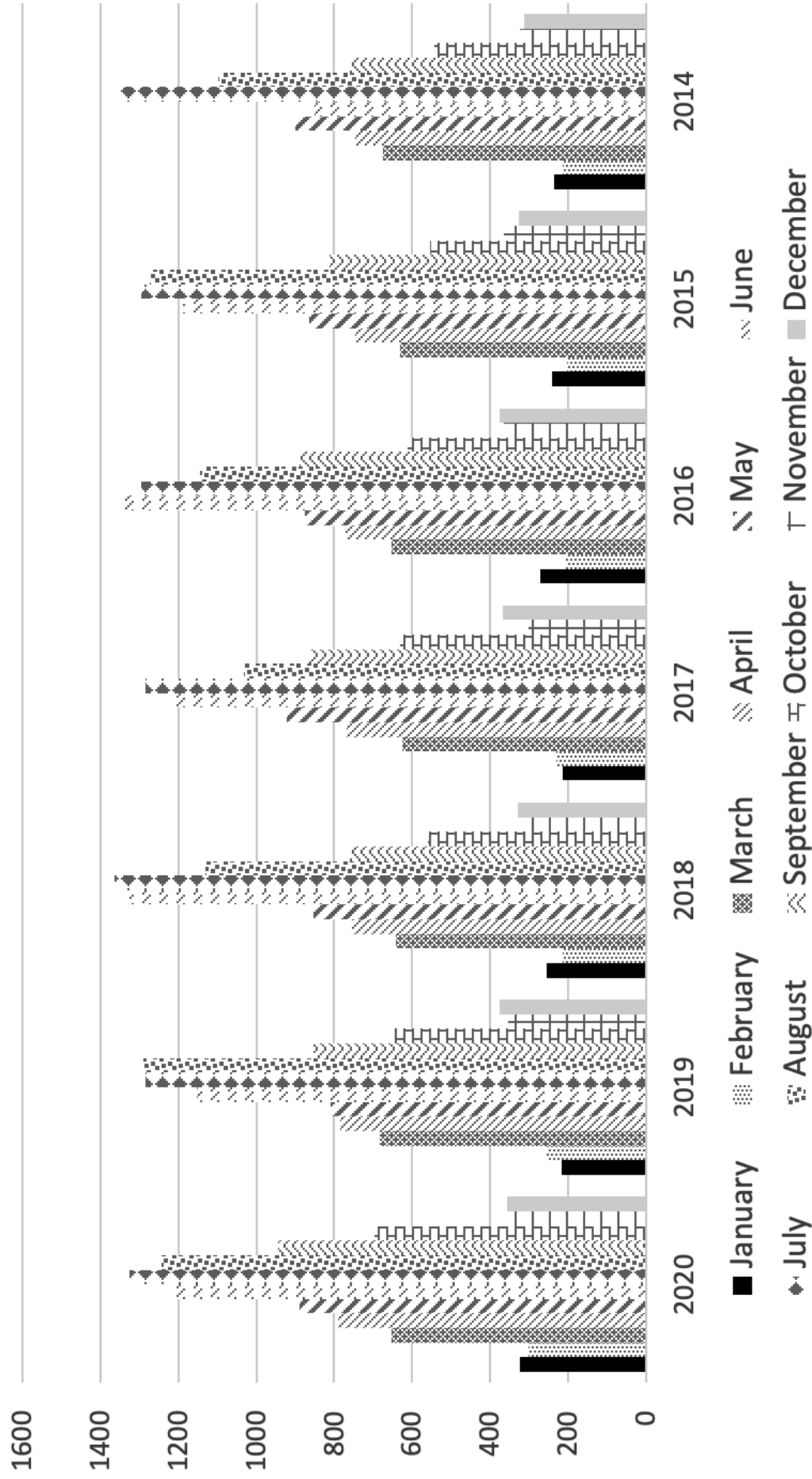
Capital City Park Visitors

31. How many parks are represented on the graph?
    a. 1
    b. 7
    c. 12
    d. 19

32. In what year and month did the highest number of people visit Capital City Park?
    a. June, 2015
    b. July, 2016
    c. June, 2017
    d. July, 2018

33. What do the lightest columns on the graph represent?
    a. 2020
    b. 2019
    c. January
    d. May

34. Which year had the lowest number of visitors in October?
    a. 2020
    b. 2017
    c. 2016
    d. 2014

35. How many years of data are represented on the graph?
    a. 0
    b. 1
    c. 6
    d. 7

36. In how many years, did February have the lowest number of visitors?
    a. 0
    b. 3
    c. 5
    d. 7

37. What information is presented on the x axis?
    a. The year
    b. The park name
    c. The number of visitors
    d. None of the above

38. In 2015, what month had the highest number of visitors?
    a. May
    b. June
    c. July
    d. August

39. In 2018, what was the difference between the highest number of visitors in a month and the lowest?
    a. About 800
    b. About 1,100
    c. About 1,300
    d. About 1,500

40. How many years had the peak number of visitors in June?
    a. 0
    b. 1
    c. 2
    d. 4

TRUE/FALSE

41. Park visitations peak in the summer months (June, July, August).

42. 2020 had higher visitations than 2014 in every month.

43. December had lower visitor number than November in every year.

44. The park never had more than 1,400 visitors in a single month.

45. In every year represented on the graph, Capital City Park had at least 1,000 visitors three or more months out of the year.

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Australia and Oceania

46. What is considered the largest island in the area?
    a. Australia
    b. New Guinea
    c. Indonesia
    d. Philippines

47. Where is the Bay of Plenty located?
    a. Off the coast of Australia
    b. Off the coast of the Philippines
    c. Off the coast of New Zealand
    d. None of the above

48. What is the predominant land use type on the east coast of Australia?
    a. Urban
    b. Commercial farming
    c. Subsistence farming
    d. No widespread use

49. What does the yellow outline around Kiribati indicate?
    a. Official international boundary
    b. Continental boundary
    c. Which islands have the same government
    d. None of the above

50. What land feature covers 80% of the continent?
    a. Western Plateau
    b. Outback
    c. Great Artesian Basin
    d. Tanami Desert

51. Okinawa is a territory of what country?
    a. Japan
    b. China
    c. Indonesia
    d. Philippines

52. Which of the following lakes in Australia is seasonal?
    a. Lake Barlee
    b. Lake Eyre
    c. Lake Gairdner
    d. All of the above

53. How far is it from Sydney, Australia to Gold Coast, Australia.
    a. About 200 miles
    b. About 425 miles
    c. About 600 miles
    d. About 815 miles

54. What is the capital of the Northern Territory of Australia?
    a. Alice Springs
    b. Wyndham
    c. Darwin
    d. Canberra

55. The Louisiade Archipelago is part of what country?
    a. Indonesia
    b. New Guinea
    c. Papua New Guinea
    d. Solomon Islands

TRUE/FALSE

56. High populations densities in Australia are located in coastal areas.

57. Australia imports the most goods from the United States.

58. The city of Gore, New Zealand has a population of over 100,000 people.

59. The land area of the Australia is larger than that of the continental United States.

60. New Zealand sheep ranches are called stations.

Capital City Park Revenue

Legend: General Fund · Special Fund ·· Parks Renewal Fund · Business Donations · Private Donations

Y-axis: 0, 5,000, 10,000, 15,000, 20,000, 25,000, 30,000, 35,000, 40,000

X-axis: 2015, 2016, 2017, 2018, 2019
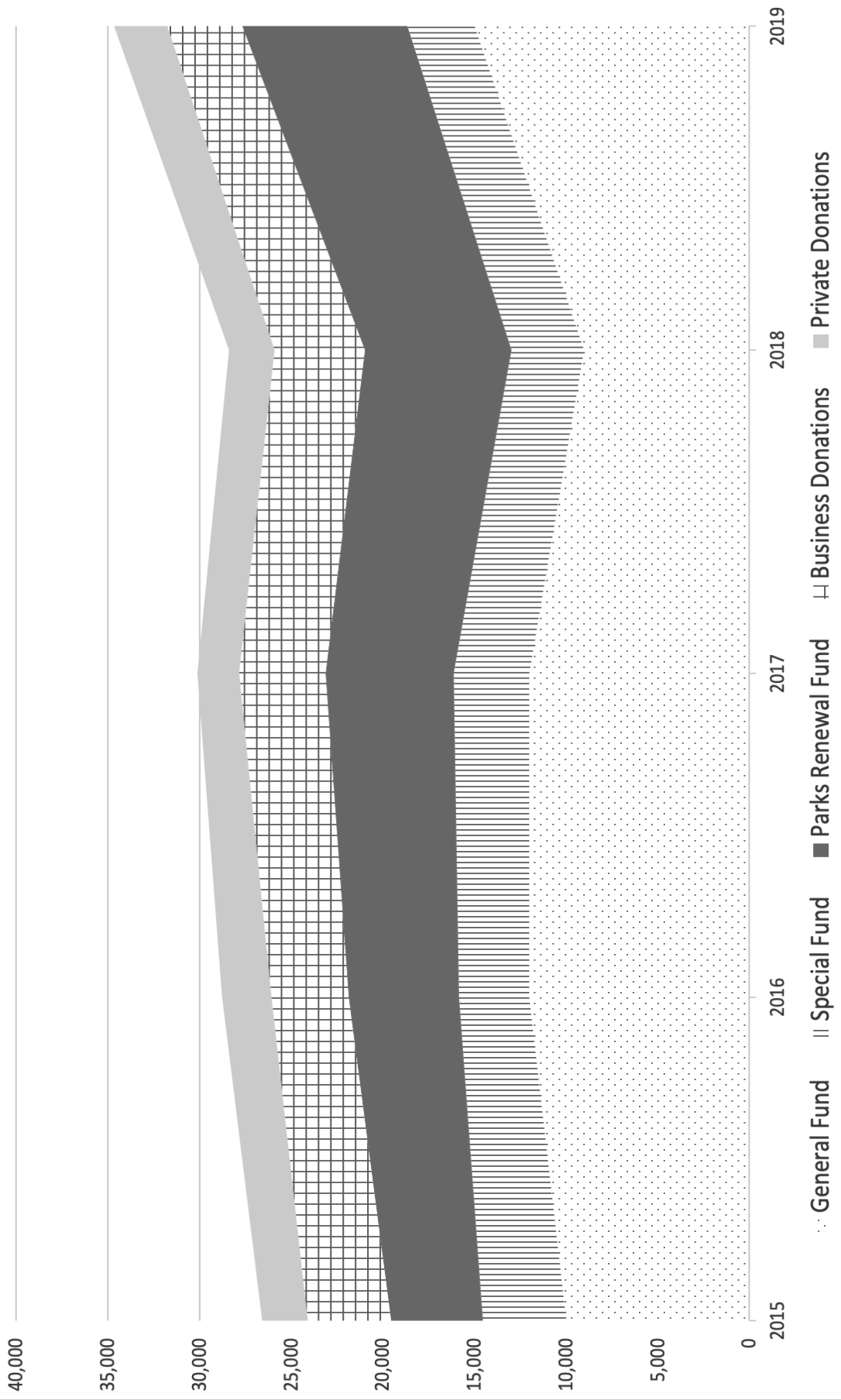
Capital City Park Revenue Chart

61. What does the y axis represent?
    a. Revenue amount for each year
    b. The year
    c. Expenditure amount for each year
    d. None of the above

62. Which single source of revenue is the highest in every year?
    a. General Fund
    b. Special Fund
    c. Park Renewal Fund
    d. Business Donations

63. What year had the most total revenue?
    a. 2016
    b. 2017
    c. 2018
    d. 2019

64. What year had the highest revenue contribution from business donations?
    a. 2016
    b. 2017
    c. 2018
    d. 2019

65. In how many years were private donations higher than business donations?
    a. 0
    b. 1
    c. 3
    d. 5

66. How many types of revenue are represented on the graph?
    a. 0
    b. 1
    c. 3
    d. 5

67. In how many years was total revenue under $30,000?
    a. 0
    b. 1
    c. 2
    d. 3

68. What does the black section of the graph represent?
    a. 2014
    b. 2015
    c. Business donations
    d. Private donations

69. How many types of revenue increased every year?
    a. 0
    b. 1
    c. 2
    d. 3

70. In 2016, what was the lowest revenue source?
    a. Special fund
    b. Park renewal fund
    c. Business Donations
    d. Private donations

TRUE/FALSE

71. The chart is stacked from lowest revenue source on the bottom to the highest on top.

72. The graph covers six years.

73. The most revenue from a single source happened in 2019.

74. Special fund revenue exceeded $5,000 in a single year twice.

75. Total revenue never fell under $25,000 in a single year.

University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
7/8 Fall District
Answer Key

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

University Interscholastic League
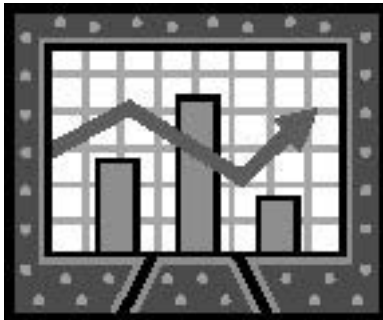
Maps, Graphs & Charts
grades 7 & 8

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Europe

1. Which of the following Polish cities has the smallest population?
   a. Wroclaw
   b. Krakow
   c. Radom
   d. Poznan

2. Which of the following is higher in Asian Russia than European Russia?
   a. Land Area
   b. Population
   c. GDP
   d. None of the above

3. Which county gets the highest percentage of its' power from nuclear power?
   a. Spain
   b. France
   c. Austria
   d. Norway

4. What is the dominant land cover of the steppes?
   a. Cropland
   b. Grassland
   c. Needleleaf forest
   d. Tundra

5. The capital of what country is located on the Dnieper River?
   a. Russia
   b. Ukraine
   c. France
   d. Sweden

6. Which of the following countries contains two small countries within its' borders?
   a. Finland
   b. Belarus
   c. Italy
   d. Estonia

7. Which of the following does not have shores on the North Sea?
   a. United Kingdom
   b. Norway
   c. Denmark
   d. Iceland

8. Which country has the largest population?
   a. Germany
   b. Turkey
   c. France
   d. Russia

9. Which country does not have territory on two continents?
   a. Spain
   b. Russia
   c. Turkey
   d. Kazakhstan

10. Kolguyev Island is a territory of what country?
    a. France
    b. Turkey
    c. Russia
    d. Italy

11. Glaciers can be found in what country?
    a. Iceland
    b. Ireland
    c. Norway
    d. Russia

12. What does the term polder refer to?
    a. A ranch
    b. Land reclaimed from the sea
    c. Power from wind
    d. Unsettled territory

13. How far is it from the capital of Greece to the capital of Macedonia?
    a. About 200 miles
    b. About 300 miles
    c. About 400 miles
    d. About 500 miles

14. Where is Kattegat located?
    a. West of Ireland
    b. East of Bulgaria
    c. South of Croatia
    d. North of Germany

15. What is responsible for the mild climate of Western Europe?
    a. Gulf Stream
    b. North Atlantic Drift
    c. Benguela Current
    d. North Equatorial Current

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

Conner Street (One Way Street)

Capital Street (One Way Street)

Lake Street

Potter Street

Capital Building

Center Library

c

Fine Art Museum

Lake Park

Vendor Parking

Silver Stems

Caleb's

Andy's Pizza

Granny's Groceries

Foodie Market

Vitamin Stop

Matt's Bakery

Tudor's Tulips

Sushi Palace

Vegetable Mart

BBQ Shack

Public Parking

Health Store

Farm To You

Yes Ramen!

Parks High School

Community College Main Building

Legend

Flower Shop
Produce Shop
Restaurant
Grocery Store
Health Store
Picnic Area
Water Fountain
Restroom

N
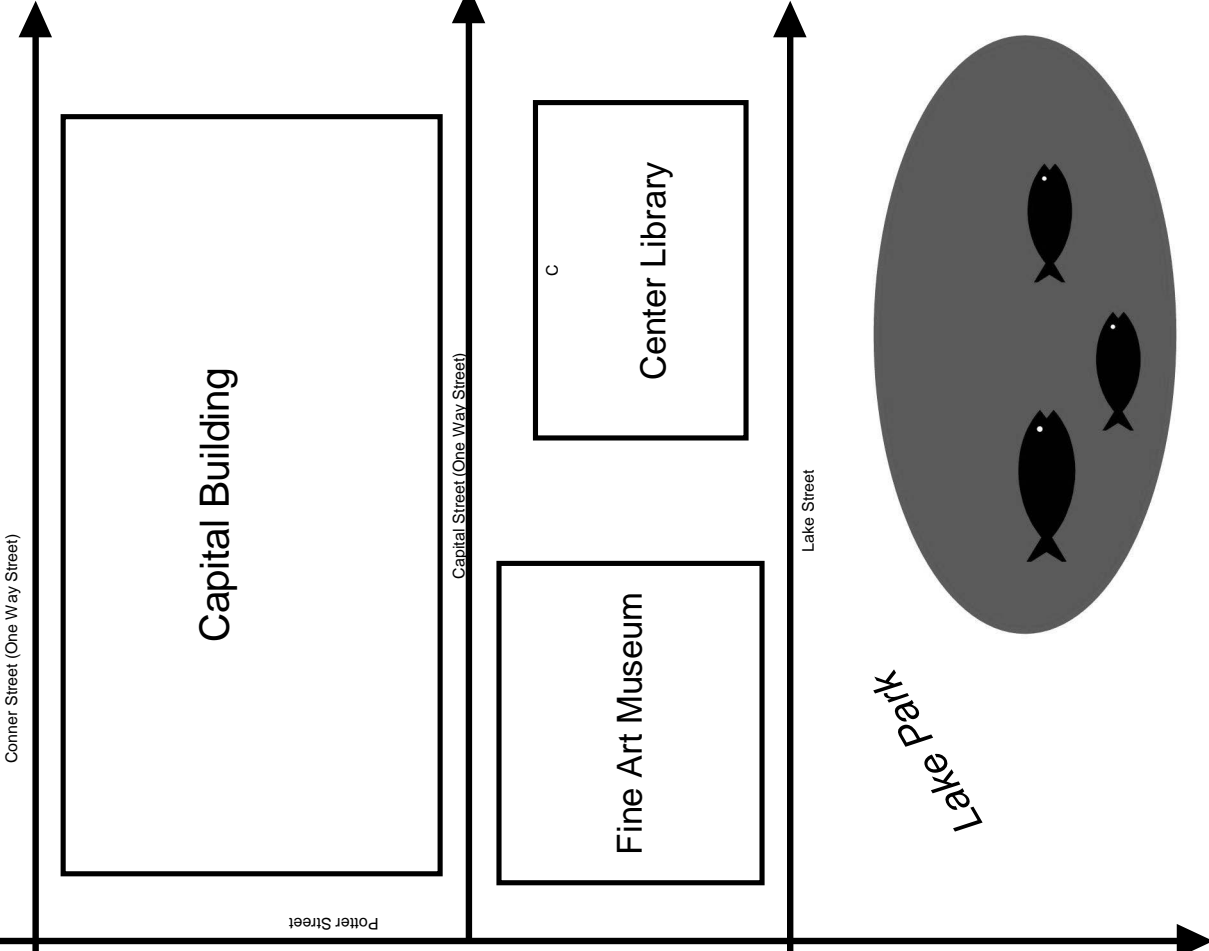
Capital City Downtown District and Park Complex

16. How many one way streets are indicated on the map?
    a. 0
    b. 1
    c. 2
    d. 3

17. What type of vendor is Caleb's?
    a. Flower Shop
    b. Produce Shop
    c. Grocery Store
    d. Restaurant

18. How many days out of the week is the market open?
    a. 0
    b. 1
    c. 2
    d. 3

19. Public parking at the market can be accessed from what street?
    a. Lake Street
    b. Conner Street
    c. Capital Street
    d. None of the above

20. How many picnic areas are provided at the market?
    a. 0
    b. 1
    c. 2
    d. 3

21. Which of the following restaurants is located nearest vendor parking?
    a. Yes Ramen!
    b. Andy's Pizza
    c. Granny's Groceries
    d. Sushi Palace

22. The Fine Art Museum is located just west of what other building?
    a. Center City Outdoor Market
    b. Capital Building
    c. Center Library
    d. Lake Park

23. Which of the following is located on Lake Street?
    a. Community College Main Building
    b. Lake Park
    c. Parks High School
    d. All of the above

24. What time does the market close on Sundays?
    a. 9:00 a.m.
    b. 9:00 p.m.
    c. The market is not open Sundays
    d. Not indicated

25. Which of the following is not located directly across the street from the market?
    a. Center Library
    b. Community College Main Campus
    c. Capital Building
    d. Fine Art Museum

TRUE/FALSE

26. Parks High School is located at the southwest corner of Potter Street and Lake Street.

27. The market is closed more months than it is open.

28. There are twice as many restaurants as any other type of vendor.

29. The Foodie Mart is the only grocery store in the market.

30. Conner Street only runs west to east.

Percentage of Star County Produce Vendors Selling Popular Produce Items

Legend: Squash, Zucchini, Cucumber, Onion, Apple, Tomato
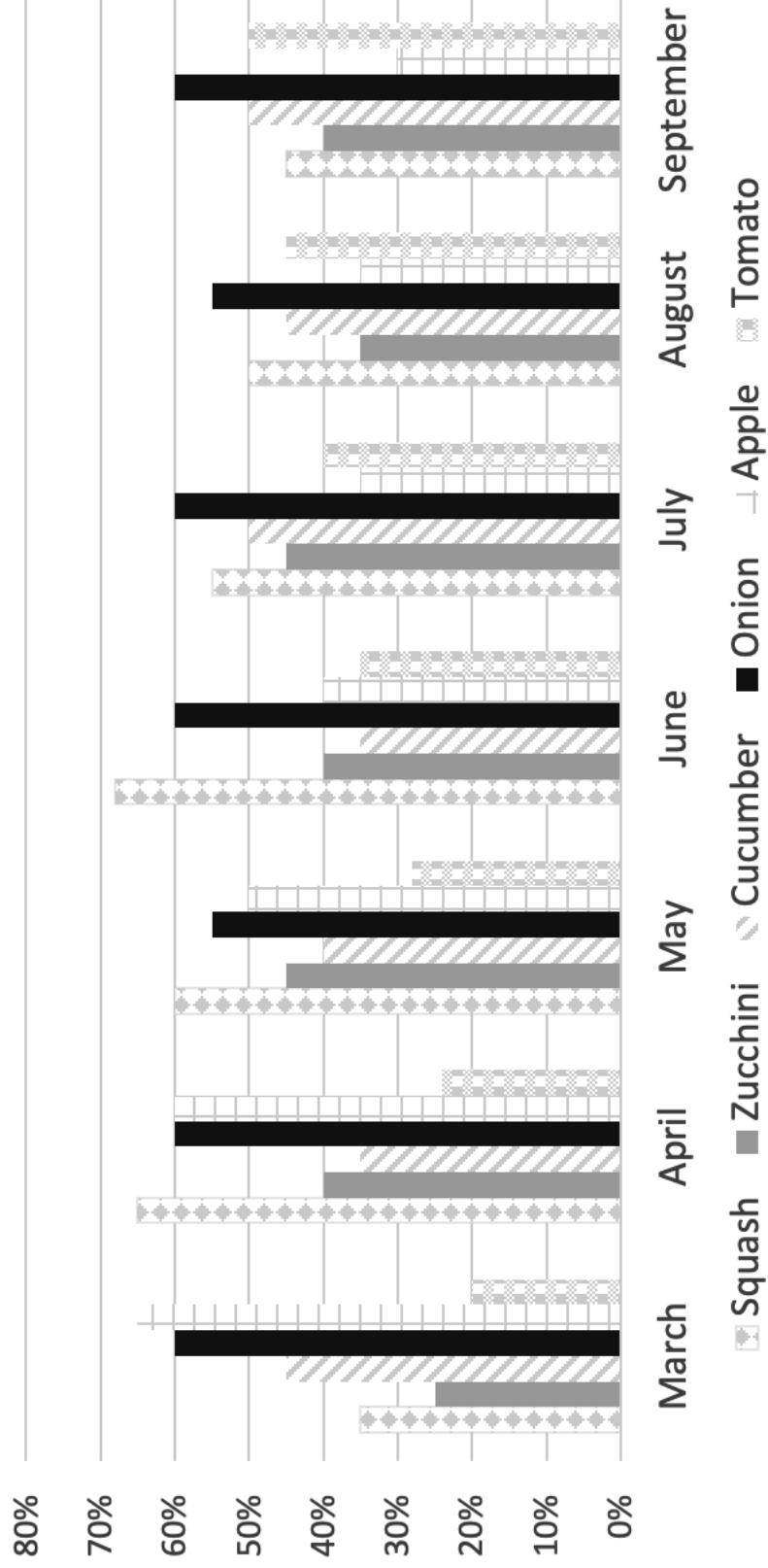
Percentage of County Produce Vendors Selling Popular Produce Items

31. What does the Y axis represent?
    a. Price of individual items
    b. Total number of vendors selling an item
    c. Percentage of vendors selling an item
    d. The month data was collected

32. How many vendors were surveyed to get the data?
    a. 6
    b. 7
    c. 100
    d. Not indicated

33. What item is represented by the darkest column?
    a. Squash
    b. Zucchini
    c. Cucumber
    d. Onion

34. What year is the data gathered from?
    a. 2020
    b. 2017
    c. 2016
    d. Not indicated

35. What item had the highest availability in April?
    a. Squash
    b. Zucchini
    c. Apple
    d. Tomato

36. How many items had an increase in availability every month?
    a. 0
    b. 1
    c. 2
    d. 3

37. What month was the percentage of vendors selling apples the lowest?
    a. March
    b. May
    c. July
    d. September

38. How often did the percentage of vendors selling a single item rise above 70%?
    a. 0
    b. 1
    c. 2
    d. 4

39. Which item had the least fluctuation in percentage of vendors selling that item?
    a. Apple
    b. Cucumber
    c. Onion
    d. Tomato

40. What span of time does the graph provide data for?
    a. 7 months
    b. 8 months
    c. 1 year
    d. 7 years

TRUE/FALSE

41. Data was gathered from produce vendors in several counties.

42. Tomatoes were sold by the smallest percentage of vendors every month.

43. Peak availability for zucchini occurred in May and July.

44. A higher percentage of vendors sold squash in August than apples.

45. The percentage of vendors selling cucumber never fell below 50%.

Spring 7/8 2021-2022

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46. What river forms part of the border between Central African Republic and the Democratic Republic of the Congo?
    a. Benue River
    b. Sobat River
    c. Ubangi River
    d. Chari River

47. Which of the following receives the most precipitation per year?
    a. South Africa
    b. Egypt
    c. Namibia
    d. Equatorial Guinea

48. Where is the second largest lake on the continent located?
    a. On the border of Mali
    b. On the border of Tanzania
    c. On the border of Kenya
    d. On the border of Senegal

49. What percentage of the labor force in Niger is involved in agriculture?
    a. 50%
    b. 60%
    c. 80%
    d. 90%

50. Which of the following has the smallest population?
    a. Ibadan, Nigeria
    b. Kano, Nigeria
    c. Bauchi, Nigeria
    d. Benin City, Nigeria

51. Which has the highest annual birth rate?
    a. Ethiopia
    b. Niger
    c. South Africa
    d. World

52. The Prime Meridian runs through which of the following?
    a. Sudan
    b. Mali
    c. Botswana
    d. All of the above

53. Marine climate can be found in what area of Africa?
    a. North
    b. South
    c. East
    d. West

54. Algeria gets the most imports from which of the following?
    a. United States
    b. European Union
    c. China
    d. Russia

55. Uranium can be found in what country?
    a. Somalia
    b. Sudan
    c. Chad
    d. None of the above

TRUE/FALSE

56. The city of Fez, Morocco is less than 150 miles away from the capital of the country.

57. The highest incidents of AIDS are found in North Africa.

58. The Bight of Benin is off the coast of Togo.

59. Madagascar is a territory of Mozambique.

60. Cameroon has two areas of urban land use.

Star County Organic Food Sales

Legend: ▦ Fruit and vegetables ▧ Dairy # Snack Foods ▦ Beverages ■ Breads and grains ▦ Meat, fish, poultry

Y-axis: $60,000.00, $50,000.00, $40,000.00, $30,000.00, $20,000.00, $10,000.00, $-

X-axis: 2015, 2016, 2017, 2018, 2019
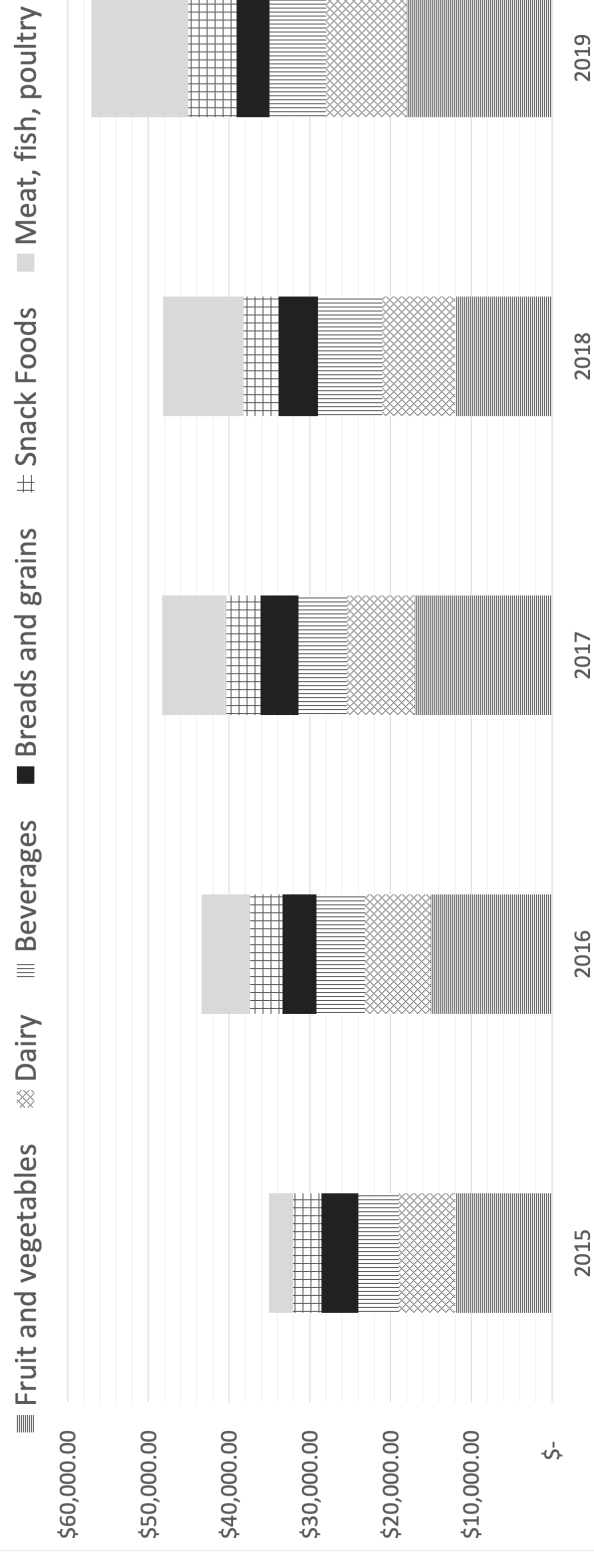
Star County Organic Food Sales

61. What does each column represent?
    a. A single type of organic product
    b. A year's worth of data
    c. The source of the product
    d. None of the above

62. What do the numbers on the Y axis represent?
    a. Sales in dollars
    b. Sales in pounds
    c. Sales in kilograms
    d. Sales by individual packages

63. What year had the lowest in total organic sales?
    a. 2015
    b. 2016
    c. 2018
    d. 2019

64. What category had the highest sales the most years?
    a. Meat, fish, poultry
    b. Breads and grains
    c. Dairy
    d. Fruit and vegetables

65. What category had the highest jump in sales from 2015 to 2019?
    a. Meat, fish, poultry
    b. Dairy
    c. Snack Foods
    d. Fruit and vegetables

66. How many categories of organic products are presented on the graph?
    a. 4
    b. 5
    c. 6
    d. 7

67. In what year were sales highest for organic beverages?
    a. 2015
    b. 2016
    c. 2017
    d. 2018

68. Which category had the lowest amount of sales for all years combined?
    a. Fruits and vegetables
    b. Dairy
    c. Snack foods
    d. Meat, fish, poultry

69. Where does the data come from?
    a. A single county
    b. A single state
    c. The entire country
    d. The data is global

70. What year saw the biggest jump in total sales compared to the previous year?
    a. 2016
    b. 2017
    c. 2018
    d. 2019

TRUE/FALSE

71. Fruit and vegetable sales increased every year.

72. Total sales for all categories only exceeded $50,000 once.

73. The graph does not indicate the number of vendors data was gathered from.

74. Beverage sales were always higher than sales for breads and grains.

75. The lightest section of the bar represents the category of dairy.

University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2021-2022
7/8 Spring District
Answer Key

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

CONTESTANT NUMBER:

UIL

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

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
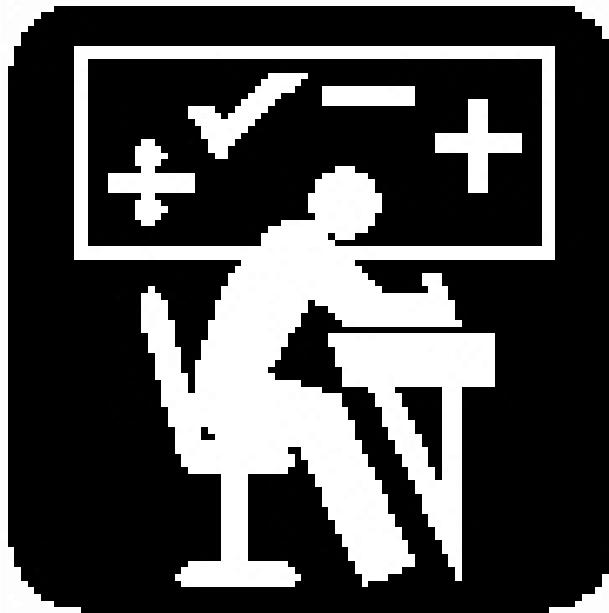
A+ ACADEMICS

University Interscholastic League

Mathematics

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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) $\dfrac{1}{2}$ B) $\dfrac{1}{4}$ C) 4   D) 2   E) $\dfrac{3}{4}$

(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) 64π in^2 C) 16 in^2 D) 4π 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
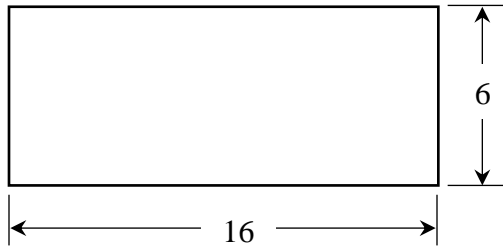
(7)   If the sales tax for an item is $8\dfrac{1}{2}$ %, what is the sales tax for an item that costs $100?
   A) $82.50   B) $0.83   C) $1.83   D) $8.50   E) $8.05

(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) $4\dfrac{2}{3}$ 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) $\dfrac{48}{13}$ D) $\dfrac{13}{48}$
   B) $\dfrac{11}{48}$ E) $\dfrac{11}{24}$
   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) $6\dfrac{1}{3} \times 9\dfrac{1}{3} =$

A) $54\dfrac{1}{9}$ B) $54\dfrac{1}{6}$ C) $59\dfrac{1}{9}$ D) $15\dfrac{1}{6}$ E) $69\dfrac{1}{3}$

(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 $\dfrac{3}{8} + \dfrac{1}{n} = \dfrac{1}{4}$, then $n =$

A) $-\dfrac{1}{4}$ B) $-\dfrac{1}{8}$ C) $\dfrac{3}{32}$ 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?

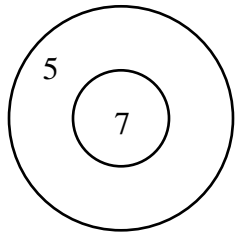A) 66 m^2

B) 54 m^2

C) 78 m^2

D) 42 m^2

E) 70 m^2
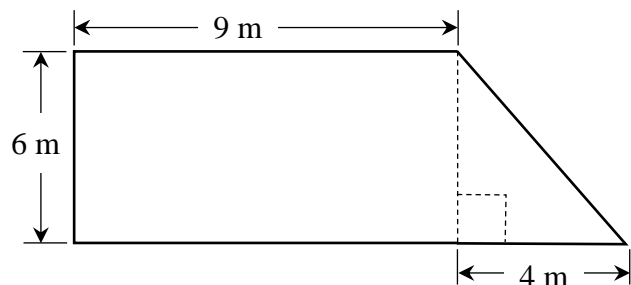
(23) Maria set a school record for most points in a single basketball game when her team scored 48 points. The six other players on her team averaged 3.5 points each. How many points did Maria score to set her school record?
A) 32   B) 21   C) 25   D) 27   E) 17

(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.

Sports Preferred to Watch on TV
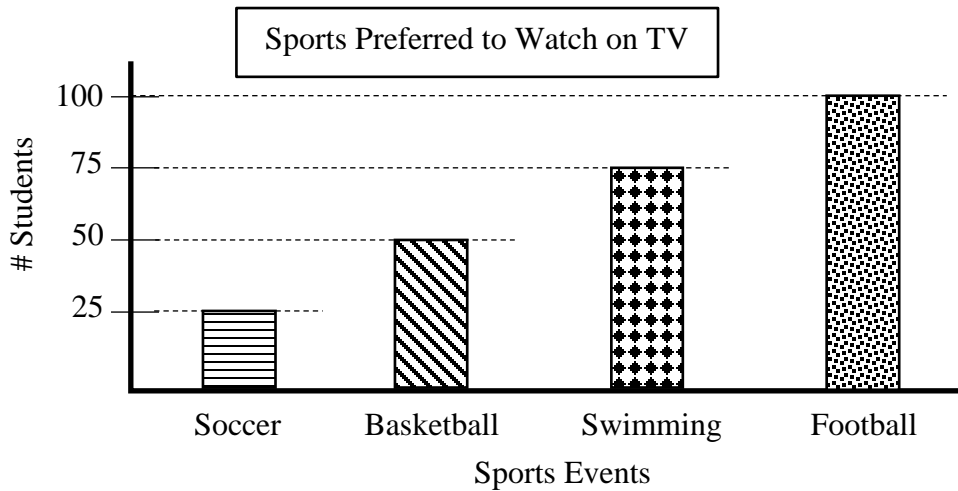
(25) Students at Alan Shepard Middle School were surveyed recently as to the sporting event they most liked to watch on TV. According to the survey bar graph, how many total students were surveyed?
A) 100   B) 150   C) 175   D) 200   E) 250

(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) $0.3888\ldots.. =$
    A) $\dfrac{38}{99}$ B) $\dfrac{19}{45}$ C) $\dfrac{7}{18}$ D) $\dfrac{35}{99}$ E) $\dfrac{7}{12}$

(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 $\dfrac{a+b}{2}$, then $(4*6)*2$ equals what number?
    A) 7   B) $3\dfrac{1}{2}$ C) 12   D) 6   E) $4\dfrac{1}{2}$

(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
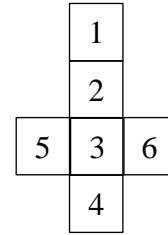
(44)　An *arithmetic sequence* is a sequence in which each term after the
first is obtained by adding a constant to the previous term. For
example, 2, 4, 6, 8 and 1, 4, 7, 10 are arithmetic sequences. In the
grid shown to the right, the numbers in each row must form an
arithmetic sequence and the numbers in each column must form an
arithmetic sequence. What is the value of x?
A) 28　　　　　D) 43.75
B) 36　　　　　E) 46
C) 37

(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) $\frac{1}{4}$　　　　D) $\frac{3}{7}$
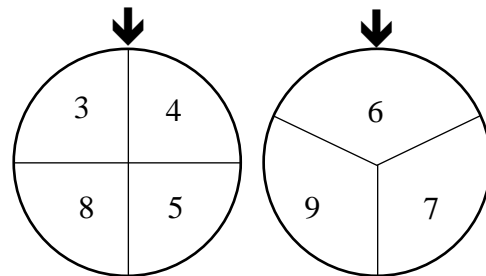
B) $\frac{1}{2}$　　　　E) None of these

C) $\frac{1}{6}$

(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　　　　D) 36 cm^2
B) 72 cm^2　　　　E) 24 cm^2
C) 48 cm^2
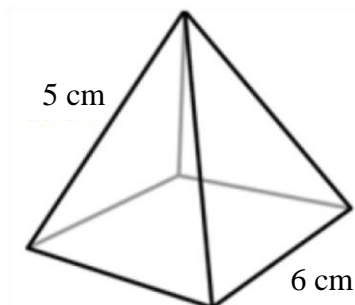
(49)   Daniel begins with 64 coins in his coin jar. Each time he reaches into the jar, he removes half of the coins that are in the jar. How many times must he reach in and remove coins from his jar so that exactly 1 coin remains in the jar?

A) 5   B) 6   C) 7   D) 32   E) 63

(50)   What is the x-intercept of the straight line $5y = 3x - 20$?

A) $-\dfrac{1}{4}$ B) $\dfrac{3}{5}$ C) $\dfrac{20}{3}$ D) 0   E) –4

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

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

FALL/WINTER DISTRICT 2021-2022
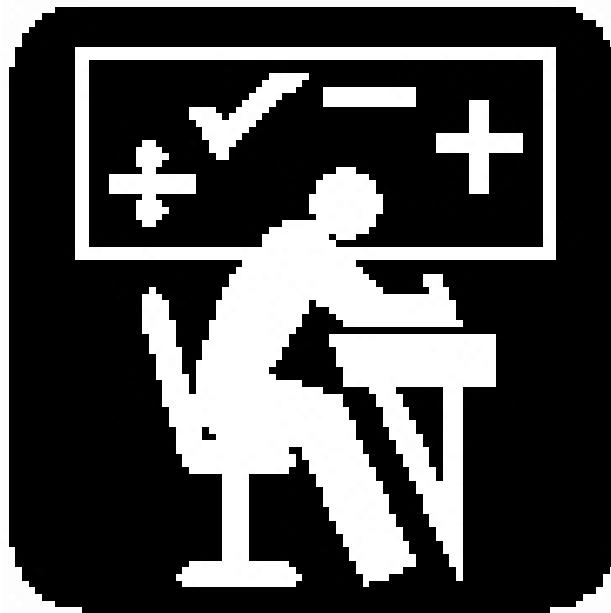
A+ ACADEMICS

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

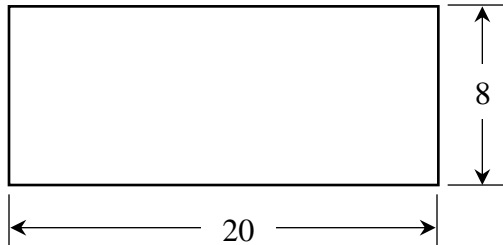(6)   How many minutes are between 7:30 AM and 3:20 PM of the same day?
        A) 480 minutes B) 490 minutes C) 500 minutes D) 520 minutes E) None of these

(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) $\frac{7}{20}$

(11)   If the product of two consecutive whole numbers is 272, 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 12 people who were not dancing. What was the original number of people in the room before the cake-cutting ceremony?
   A) 18   B) 30   C) 36   D) 42   E) 72

(13) Genny has a square-shaped deck in her backyard with the dimensions 15 ft × 15 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) Area = $(15a)^2$ B) Area = $15^2 + a$ C) Area = $15^2 + a^2$ D) Area = $(15 + a)^2$ E) 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) $8\dfrac{3}{4} \times 8\dfrac{1}{4} - \dfrac{3}{16} =$

A) 64   B) $64\dfrac{3}{8}$ C) $64\dfrac{3}{16}$ D) 72   E) $72\dfrac{3}{16}$

(16) In the sequence: -1, 2, a, 14, 23, b, 47, . . ., what does $2a^2 - b$ equal?
A) -20   B) 64   C) -22   D) 36   E) 15

(17) If $0.125 + \dfrac{1}{n} = \dfrac{3}{4}$, then $n =$

A) $1\dfrac{3}{5}$ B) $\dfrac{5}{8}$ C) $\dfrac{7}{8}$ D) $1\dfrac{1}{7}$ E) $-\dfrac{5}{8}$

(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 $ABCD$?
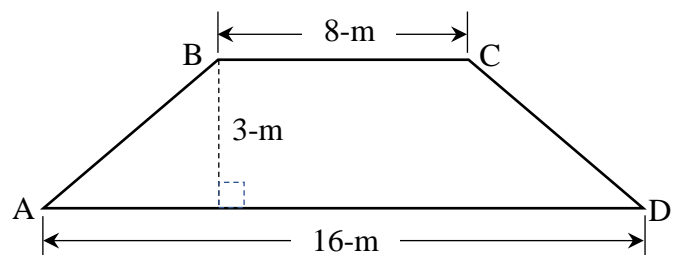
A) 27 m
B) 30 m
C) 32 m
D) 34 m
E) 48 m

(23) Which of the following illustrates the multiplicative identity property?

A) $a(0) = 0$ 　　　　B) $a\left(\dfrac{1}{a}\right) = 1$ 　　　　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.

y 　**Movie Attendance**

Number Of People

Days
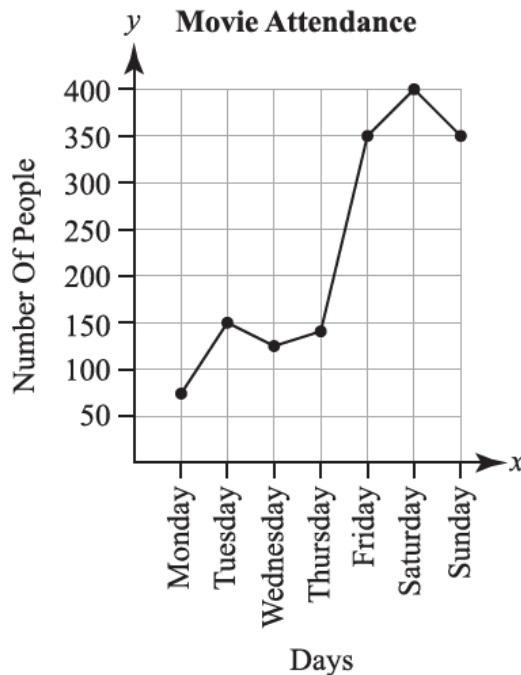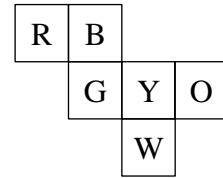
(25) The graph above shows the number of customers at a local movie theater for one week. What was the percent increase in attendance from Monday to Tuesday?
A) 100% 　　　　B) 150% 　　　　C) 175% 　　　　D) 75% 　　　　E) 15%

(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-in²?
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 . . . . =

A) $\dfrac{7}{15}$ B) $\dfrac{23}{45}$ C) $\dfrac{14}{33}$ D) $\dfrac{46}{99}$ E) $\dfrac{23}{99}$

(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) $1\dfrac{1}{2}$ -m   B) 2-m   C) $2\dfrac{1}{2}$ -m   D) $2\dfrac{2}{3}$ -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) $66\dfrac{2}{3}$ %

(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
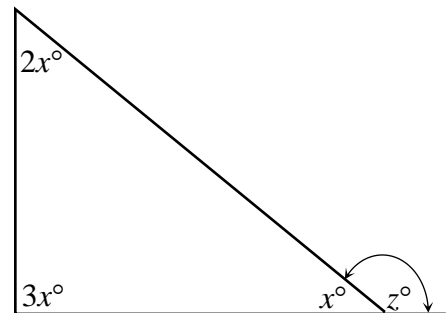
(45) Larry the llama is tied to the corner of a 2-m by 3-m shed on a 3-m leash. How much area does Larry have in which to play if he can go only around the outside of the shed?
    A) 4π-m^2 B) 5π-m^2 C) 7π-m^2 D) 9π-m^2 E) 4π-m^2

(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) $\dfrac{1}{4}$
    B) $\dfrac{1}{2}$
    C) $\dfrac{3}{7}$
    D) $\dfrac{2}{3}$
    E) $\dfrac{1}{6}$
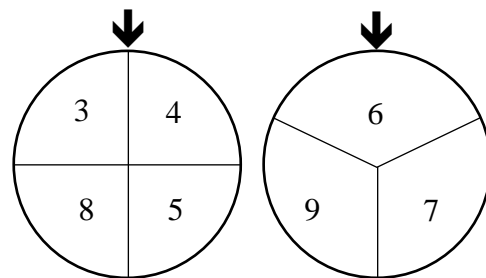
(47) Which of the following pairs of numbers has a greatest common factor of 12?
    A) 24 and 108   B) 16 and 24   C) 12 and 18   D) 36 and 40   E) 24 and 32

(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) $\dfrac{4}{9}$ B) $\dfrac{1}{5}$ C) $\dfrac{25}{52}$ D) $\dfrac{19}{40}$ E) $\dfrac{2}{5}$

(50) What is the x-intercept of the straight line $6y = \dfrac{3}{4}x - 12$?
     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

University Interscholastic League

Mathematics

# 2021 – 2022 University Interscholastic League JH/MS Mathematics Contest C

(1) Evaluate: $(-10 + -9 + -8 + \ldots + -1) + (1 + 3 + 5 + \ldots + 11)$.
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) 512 in^2 C) 256 in^2 D) 128 in^2 E) 64 in^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 × 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) $6\dfrac{3}{4} \times 6\dfrac{1}{4} - \dfrac{3}{16} =$

A) $42\dfrac{3}{16}$ B) $36\dfrac{3}{8}$ C) 42 D) $36\dfrac{3}{16}$ E) $42\dfrac{3}{16}$

(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 $0.375 + \dfrac{1}{n} = \dfrac{3}{4}$, then $n =$

A) $1\dfrac{3}{8}$ B) $\dfrac{3}{8}$ C) $2\dfrac{2}{3}$ D) $1\dfrac{1}{3}$ E) $-\dfrac{3}{8}$

(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 $ABCD$?
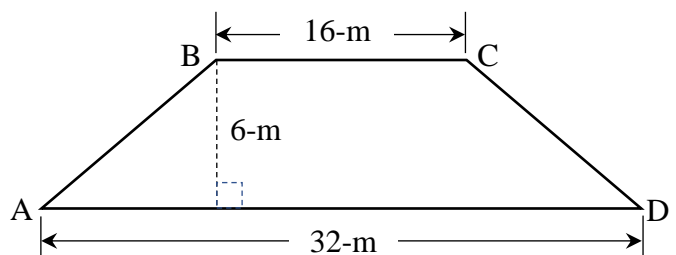
A) 42 m
B) 48 m
C) 52 m
D) 58 m
E) 68 m

(23)   Which of the following illustrates the additive identity property?

A) $a + (0) = a$ B) $a\left(\dfrac{1}{a}\right) = 1$ 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.

Lunches Sold on Friday
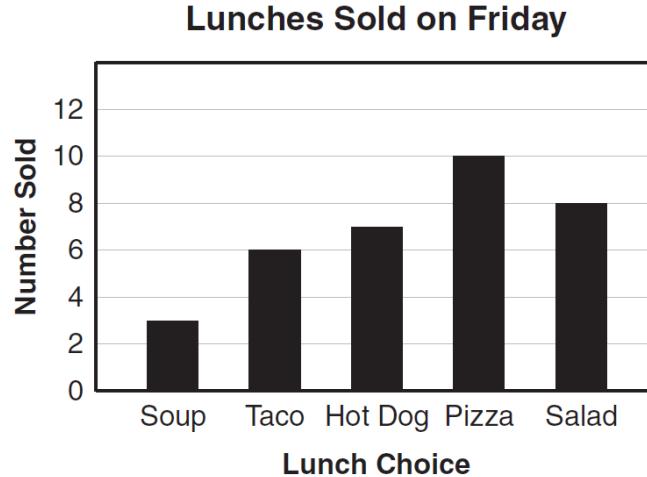
(25)   The bar graph above shows the number of different lunches sold at Thurgood Marshall Middle School on a Friday. The number of pizza lunches sold was the same as the number of which two lunch choices added together?
A) soup & hot dog   B) soup & salad   C) taco & hot dog   D) taco & salad   E) taco & 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 the 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 . . . . =
A) $\dfrac{7}{15}$ B) $\dfrac{73}{90}$ C) $\dfrac{11}{15}$ D) $\dfrac{73}{99}$ E) $\dfrac{7}{60}$

(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) $2\dfrac{1}{2}$-m B) $3\dfrac{1}{3}$-m C) $3\dfrac{1}{2}$-m D) $2\dfrac{2}{3}$-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) $66\dfrac{2}{3}$%

(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?
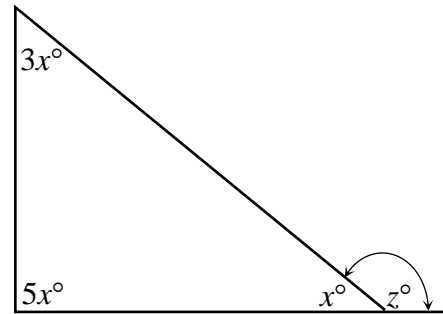
    A) 30

    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) $\dfrac{7}{4}\pi\text{-m}^2$ C) $17\pi\text{-m}^2$ D) $12\dfrac{1}{4}\pi\text{-m}^2$ E) $7\dfrac{3}{4}\pi\text{-m}^2$

(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?
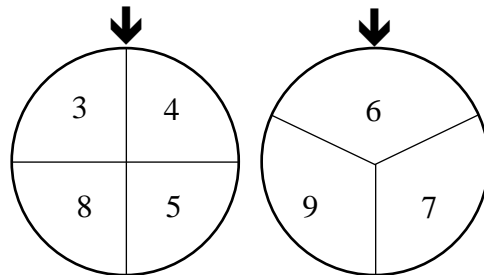
    A) $\dfrac{1}{3}$

    B) $\dfrac{1}{2}$

    C) $\dfrac{4}{7}$

    D) $\dfrac{2}{3}$

    E) $\dfrac{1}{4}$

(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) $\dfrac{1}{3}$ B) $\dfrac{1}{5}$ C) $\dfrac{1}{6}$ D) $\dfrac{7}{36}$ E) $\dfrac{2}{5}$

(50)   What is the x-intercept of the straight line $8y = \dfrac{3}{4}x - 24$?

         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

Contestant's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
Score   Initials

Read Directions Carefully   **Do Not Unfold This Sheet**
Before Beginning Test   **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!

(1) $32 \times 11 =$ _____

(2) $21 + 22 =$ _____

(3) $205 \div 5 =$ _____

(4) $12 + 6 \div 3 =$ _____

(5) $\dfrac{7}{12} + \dfrac{1}{6} =$ _____

(6) $234 \times 0.5 =$ _____

(7) $101 \div 0.25 =$ _____

(8) $23^2 =$ _____

(9) $12 \times 6 \times 5 =$ _____

*(10) $2021 \div 0.0125 =$ _____

(11) $15.25 \times 4 =$ _____

(12)   What is the median of 2, 6, 9 and 8? _____

(13)   Which is larger: $\dfrac{8}{15}$ or $\dfrac{13}{25}$? _____

(14) $25 \times 38 =$ _____

(15) $105 - 17 - 33 =$ _____

(16) $28 \times 88 =$ _____

(17) $176 \div 11 =$ _____

(18) $13 + 18 + 23 + 28 =$ _____

(19)   MCMXXV = _____ (Arabic Numeral)

*(20) $1818 \times 88 + 16 =$ _____

(21) $0.25 \times 24 + 0.5 \times 24 =$ _____

(22)   If $f(x) = 3x^2 + 5$, then $f(-3) =$ _____

(23)   The ratio of ounces in 3 cups to 1 quart is _____

(24) $6\dfrac{1}{3} \times 12\dfrac{1}{3} =$ _____ (mixed number)

(25) $5\dfrac{3}{4} + 4\dfrac{5}{6} =$ _____

(26) $111 \times 64 =$ _____

(27)   The negative square root of 169 is _____

(28)   If n is to 8 as 3 is to 4, then $n =$ _____

(29)   If $12 - 4x$ is 16 then $x =$ _____

*(30) $18 \times 20 \times 22 =$ _____

(31) $84 \times 75 =$ _____

(32)   The sum of the two largest prime numbers less than 20 is _____

(33)   If $0.75 - 0.25 = n$, the $n^{-1} =$ _____

(34)   The product of the lcm and gcd of 8 and 24 is _____

(35)   1 mile = _____feet

(36)   8 percent = _____ (common fraction)

(37)   The total cost of item that costs \$160 with a sales tax of $6\dfrac{1}{4}$ % is \$ _____

(38)　$46 \times 44 =$ _____

(39)　The area of an equilateral triangle with side 4-cm is

　　　$a \sqrt{3}$　and $a =$_____cm^2

*(40)　$19 \sqrt{14400} =$ _____

(41)　23 (base 4) = _____ (base 2)

(42)　$9^3 =$ _____

(43)　\$5 minus 3 quarters minus 4 nickels = \$ _____

(44)　What is the length of a diagonal of a rhombus with an

　　　area of 36 m^2 and other diagonal 4 m? _____m

(45)　23 (base 5) – 14 (base 5) = _____ (base 5)

(46)　$72 \times 68 =$ _____

(47)　What is the length of an edge of a cube with surface

　　　area 2400?_____

(48)　$95 \times 96 =$ _____

(49)　$10 \times (0.1 + 0.2 + 0.3 + \ldots + 1.0) =$ _____

*(50)　$502\pi^2 =$ _____

(51)　In the sequence: 1, 4, a, 16, 25, b, 49, . . .

　　　$a - b =$ _____

(52)　If $\dfrac{1}{3}x - 12 > 15$, then $x >$ _____

(53)　What is the area of a right triangle with leg 5 cm and

　　　hypotenuse 13 cm? _____cm^2

(54)　23(base 5) $\times$ 4(base 5) = _____(base 5)

(55)　What number times eight and added to fifteen equals

　　　nineteen?_____

(56)　What is the area of a trapezoid with bases 26, 24 and

　　　altitude 25? _____

(57)　If set $\mathbf{A}$ = {S, A, N, M, A, R, C, O, S} and
　　　set $\mathbf{B}$ = {S, A, N, A, N, T, O, N, I, O}, then the

　　　number of elements in $\mathbf{A} \cap \mathbf{B}$ is _____

(58)　$(14^2 - 8 \times 6) \div 5$ has a remainder of _____

(59)　$101 \times 243 =$ _____

*(60)　$749 \times 361 =$ _____

(61)　$2 \times (2^{-1} + 2^{-2}) =$ _____

(62)　3 miles =_____ yards

(63)　30 miles per hour =_____ft/sec

(64)　20% of 55% of 100 = _____

(65)　What are the odds of picking a red queen from a

　　　standard deck of 52 cards? _____

(66)　The number of minutes between 10:12 AM and

　　　3:30 PM of the same day is _____

(67)　How many whole numbers will evenly divide into

　　　18? _____

(68)　$0! =$ _____

(69)　$4\dfrac{1}{4} \div \dfrac{1}{8} =$ _____

*(70)　$249700 \div 126 =$ _____

(71)　$25^2 + 75^2 =$ _____

(72)　$0.777 \ldots =$ _____ (common fraction)

(73)　$0.8333 \ldots =$ _____ (common fraction)

(74)　The volume of a right cylinder with length 12 and

　　　radius 4 is $k\pi$, and $k =$ _____

(75)　The fourth triangular number is _____

(76)　$286 \times 7 =$ _____

(77)　What is the distance between the points (0, 5) and

　　　(-12, 0)? _____

(78)　$\dfrac{8!}{6!} + 25 =$ _____

(79)　$37^2 - 26^2 =$ _____

*(80)　15 square miles =_____acres

2021 – 2022 University Interscholastic League Junior High Number Sense Test A – Key

(1) 352

(2) 43

(3) 41

(4) 14

(5) $\frac{3}{4}$; .75

(6) 117

(7) 404

(8) 529

(9) 360

*(10) 153596 – 169764

(11) 61

(12) 7

(13) $\frac{8}{15}$

(14) 950

(15) 55

(16) 2464

(17) 16

(18) 82

(19) 1925

*(20) 152000 – 168000

(21) 18

(22) 32

(23) $\frac{3}{4}$; .75

(24) $78\frac{1}{9}$

(25) $10\frac{7}{12}$; $\frac{127}{12}$

(26) 7104

(27) -13

(28) 6

(29) -1

*(30) 7524 – 8316

(31) 6300

(32) 36

(33) 2

(34) 192

(35) 5280

(36) $\frac{2}{25}$

(37) 170.00

(38) 2024

(39) 4

*(40) 2166 – 2394

(41) 1011

(42) 729

(43) 4.05

(44) 18

(45) 4

(46) 4896

(47) 20

(48) 9120

(49) 55

*(50) 4707 – 5202

(51) -27

(52) 81

(53) 30

(54) 202

(55) .5; $\frac{1}{2}$

(56) 625

(57) 5

(58) 3

(59) 24543

*(60) 256870 – 283908

(61) 1.5; $1\frac{1}{2}$; $\frac{3}{2}$

(62) 5280

(63) 44

(64) 11

(65) $\frac{1}{25}$; .04

(66) 318

(67) 6

(68) 1

(69) 34

*(70) 1883 – 2080

(71) 6250

(72) $\frac{7}{9}$

(73) $\frac{5}{6}$

(74) 192

(75) 10

(76) 2002

(77) 13

(78) 81

(79) 693

*(80) 9120 – 10080

> 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's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
Score **Initials**

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Stop – Wait for Signal!

(1) $12 \times 50 =$ _____

(2) $34 + 32 =$ _____

(3) $244 \div 4 =$ _____

(4) $18 - 12 \div 4 =$ _____

(5) $\dfrac{3}{8} + \dfrac{1}{4} =$ _____

(6) $0.5 \times 114 =$ _____

(7) $101 \div 0.10 =$ _____

(8) $18^2 =$ _____

(9) $14 \times 4 \times 5 =$ _____

*(10) $21200 \div 0.025 =$ _____

(11) $8.25 \times 8 =$ _____

(12) What is the median of 11, 18, 7 and 15? _____

(13) Which is smaller: $\dfrac{9}{13}$ or $\dfrac{13}{18}$? _____

(14) $42 \times 25 =$ _____

(15) $333 - 56 - 34 =$ _____

(16) $72 \times 32 =$ _____

(17) $198 \div 11 =$ _____

(18) $21 + 25 + 29 + 33 =$ _____

(19) MDCCLXXVI = _____ (Arabic Numeral)

*(20) $1818 \times 66 + 12 =$ _____

(21) $0.55 \times 42 + 0.45 \times 42 =$ _____

(22) If $f(x) = 3x^2 - 15$, then $f(-3) =$ _____

(23) The ratio of ounces in 5 cups to 3 pints is _____

(24) $4\dfrac{3}{7} \times 4\dfrac{4}{7} =$ _____ (mixed number)

(25) $8\dfrac{7}{9} + 3\dfrac{5}{6} =$ _____

(26) $77 \times 111 =$ _____

(27) The negative square root of 289 is _____

(28) If 4 is to n as 2 is to 3, then $n =$ _____

(29) If $24 - 2x$ is 16 then $x =$ _____

*(30) $42 \times 40 \times 38 =$ _____

(31) $76 \times 75 =$ _____

(32) The sum of the two largest prime numbers less than 40 is _____

(33) If $0.125 + 0.25 = n$, the $n^{-1} =$ _____

(34) The product of the lcm and gcd of 18 and 15 is _____

(35) 2 miles = _____feet

(36) 6 percent = _____(common fraction)

(37) The total cost of item that costs $80 with a sales tax of $6\dfrac{1}{4}$ % is $ _____

(38) $56 \times 54 =$ _____

(39) The area of an equilateral triangle with side 2-cm is

$a \sqrt{3}$ and $a =$_____cm^2

*(40) $24 \sqrt{22501} =$ _____

(41) 31 (base 4) = _____ (base 2)

(42) $7^3 =$ _____

(43) $8 minus 6 quarters minus 7 nickels = $ _____

(44) What is the length of a diagonal of a rhombus with an

area of 10 m^2 and other diagonal 5 m? _____m

(45) 42 (base 6) – 23 (base 6) = _____ (base 6)

(46) $89 \times 91 =$_____

(47) What is the length of an edge of a cube with surface

area 600?_____

(48) $97 \times 93 =$_____

(49) $20 \times (0.1 + 0.2 + 0.3 + \ldots + 1.0) =$ _____

*(50) $8990\pi^2 =$ _____

(51) In the sequence: 1, 1, a, 3, 5, b, 13, . . .

$2a - b =$_____

(52) If $\dfrac{1}{3}x + 32 > 14$, then $x >$ _____

(53) What is the area of a right triangle with leg 6 cm and

hypotenuse 10 cm? _____cm^2

(54) 43(base 8) × 4(base 8) = _____(base 8)

(55) What number times fifteen and added to ten equals

seventy? _____

(56) What is the area of a trapezoid with bases 12.5, 23.5

and altitude 20?_____

(57) If set $\mathbf{A}$ = {C, O, M, A, L} and
set $\mathbf{B}$ = {H, I, D, A, L, G, O}, then the number of

elements in $\mathbf{A} \cup \mathbf{B}$ is_____

(58) $(22^2 + 9 \times 7) \div 6$ has a remainder of _____

(59) $767 \times 101 =$ _____

*(60) $239 \times 749 =$ _____

(61) $4 \times (2^{-1} - 2^{-2}) =$_____

(62) One-fourth mile =_____ yards

(63) 60 miles per hour =_____ft/sec

(64) 75% of 24% of 100 = _____

(65) The odds of picking a blue marble from a black bag

containing 6 red, 4 black and 8 blue marbles is _____

(66) The number of minutes between 11:40 AM and

3:30 PM of the same day is _____

(67) How many whole numbers will evenly divide into

30? _____

(68) 5! = _____

(69) $6\dfrac{2}{3} \div \dfrac{1}{6} =$_____

*(70) $349670 \div 175 =$ _____

(71) $54^2 + 18^2 =$ _____

(72) 0.7272 . . . =_____ (common fraction)

(73) 0.2777 . . . = _____ (common fraction)

(74) The volume of a right cylinder with length 10 and

radius 12 is $k\pi$, and $k =$ _____

(75) The sixth triangular number is _____

(76) $286 \times 14 =$ _____

(77) What is the distance between the points (0, 8) and

(-6, 0)? _____

(78) $\dfrac{9!}{7!} - 25 =$_____

(79) $107^2 - 93^2 =$ _____

*(80) 12 square miles =_____acres

2021 – 2022 University Interscholastic League Junior High Number Sense Test B – Key

(1) 600

(2) 66

(3) 61

(4) 15

(5) $\frac{5}{8}$; .625

(6) 57

(7) 1010

(8) 324

(9) 280

*(10) 805600 – 890400

(11) 66

(12) 13

(13) $\frac{9}{13}$

(14) 1050

(15) 243

(16) 2304

(17) 18

(18) 108

(19) 1776

*(20) 114000 – 126000

(21) 42

(22) 12

(23) $\frac{5}{6}$

(24) $20\frac{12}{49}$

(25) $12\frac{11}{18}$; $\frac{227}{18}$

(26) 8547

(27) -17

(28) 6

(29) 4

*(30) 60648 – 67032

(31) 5700

(32) 68

(33) $\frac{8}{3}$; $2\frac{2}{3}$

(34) 270

(35) 10560

(36) $\frac{3}{50}$

(37) 85.00

(38) 3024

(39) 1

*(40) 3421 – 3780

(41) 1101

(42) 343

(43) 6.15

(44) 4

(45) 15

(46) 8099

(47) 10

(48) 9021

(49) 110

*(50) 84292 – 93164

(51) -4

(52) -54

(53) 24

(54) 124

(55) 4

(56) 360

(57) 9

(58) 1

(59) 77467

*(60) 170061 – 187961

(61) 1

(62) 440

(63) 88

(64) 18

(65) $\frac{4}{5}$; .8

(66) 230

(67) 8

(68) 120

(69) 40

*(70) 1899 – 2098

(71) 3240

(72) $\frac{8}{11}$

(73) $\frac{5}{18}$

(74) 1440

(75) 21

(76) 4004

(77) 10

(78) 47

(79) 2800

*(80) 7296 – 8064

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 Junior High Number Sense Test C

Contestant's Number _____

Read Directions Carefully   **Do Not Unfold This Sheet**
Before Beginning Test   **Until Told to Begin**

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The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

(1) $14 \times 50 =$ _____

(2) $42 + 35 =$ _____

(3) $255 \div 5 =$ _____

(4) $20 - 18 \div 2 =$ _____

(5) $\dfrac{3}{10} + \dfrac{1}{4} =$ _____

(6) $0.5 \times 322 =$ _____

(7) $101 \div 0.5 =$ _____

(8) $19^2 =$ _____

(9) $16 \times 5 \times 2 =$ _____

*(10) $6250 \div 0.025 =$ _____

(11) $12.25 \times 4 =$ _____

(12)   What is the median of 9, 17, 20 and 11? _____

(13)   Which is smaller: $\dfrac{9}{11}$ or $\dfrac{11}{13}$? _____

(14) $52 \times 25 =$ _____

(15) $246 - 33 - 37 =$ _____

(16) $42 \times 62 =$ _____

(17) $253 \div 11 =$ _____

(18) $19 + 23 + 27 + 31 =$ _____

(19)   MDCCCLXXXV = _____ (Arabic Numeral)

*(20) $1818 \times 77 + 14 =$ _____

(21) $0.27 \times 37 + 0.73 \times 37 =$ _____

(22)   If $f(x) = 3x^2 - 25$, then $f(-4) =$ _____

(23)   The ratio of ounces in 2 cups to 3 pints is _____

(24) $6\dfrac{2}{7} \times 6\dfrac{5}{7} =$ _____ (mixed number)

(25) $6\dfrac{2}{3} + 4\dfrac{5}{6} =$ _____

(26) $66 \times 111 =$ _____

(27)   The negative square root of 361 is _____

(28)   If 8 is to n as 2 is to 5, then $n =$ _____

(29)   If $24 - 4x$ is 16 then $x =$ _____

*(30) $52 \times 50 \times 48 =$ _____

(31) $68 \times 75 =$ _____

(32)   The sum of the two largest prime numbers less than 50 is _____

(33)   If $0.125 + 0.375 = n$, the $n^{-1} =$ _____

(34)   The product of the lcm and gcd of 22 and 20 is _____

(35)   One-half mile = _____feet

(36)   4 percent = _____(common fraction)

(37)   The total cost of item that costs \$32 with a sales tax of $6\dfrac{1}{4}$ % is \$ _____

(38) $77 \times 73 =$ _____

(39) The area of an equilateral triangle with side 16-cm is

$a \sqrt{3}$ and $a =$ _____ cm²

*(40) $26 \sqrt{25601} =$ _____

(41) 33 (base 4) = _____ (base 2)

(42) $8^3 =$ _____

(43) $6 minus 6 quarters minus 6 nickels = $ _____

(44) What is the length of a diagonal of a rhombus with an

area of 20 m² and other diagonal 5 m? _____ m

(45) 41 (base 6) – 23 (base 6) = _____ (base 6)

(46) $39 \times 41 =$ _____

(47) What is the length of an edge of a cube with surface

area 96? _____

(48) $99 \times 99 =$ _____

(49) $30 \times (0.1 + 0.2 + 0.3 + \ldots + 1.0) =$ _____

*(50) $7502\pi^2 =$ _____

(51) In the sequence: 1, 1, a, 3, 5, b, 13, . . .

$3a - b =$ _____

(52) If $\frac{1}{3}x + 32 > 24$, then $x >$ _____

(53) What is the area of a right triangle with leg 9 cm and

hypotenuse 15 cm? _____ cm²

(54) 42(base 8) × 4(base 8) = _____ (base 8)

(55) What number times twelve and added to twelve

equals eighty-four? _____

(56) What is the area of a trapezoid with bases 12.5, 9.5

and altitude 20? _____

(57) If set **A** = {H, A, R, R, I, S} and
set **B** = {T, A, R, R, A, N, T}, then the number of

elements in **A** $\cup$ **B** is _____

(58) $(23^2 + 9 \times 8) \div 6$ has a remainder of _____

(59) $484 \times 101 =$ _____

*(60) $641 \times 749 =$ _____

(61) $8 \times (2^{-1} - 2^{-2}) =$ _____

(62) Three-fourths mile = _____ yards

(63) 45 miles per hour = _____ ft/sec

(64) 75% of 48% of 100 = _____

(65) The odds of picking a black marble from a black bag

containing 6 red, 4 black and 8 blue marbles is _____

(66) The number of minutes between 12:40 PM and

3:30 PM of the same day is _____

(67) How many whole numbers will evenly divide into

28? _____

(68) $4! =$ _____

(69) $8\frac{2}{3} \div \frac{1}{6} =$ _____

*(70) $369670 \div 185 =$ _____

(71) $48^2 + 16^2 =$ _____

(72) $0.3636\ldots =$ _____ (common fraction)

(73) $0.3888\ldots =$ _____ (common fraction)

(74) The volume of a right cylinder with length 11 and

radius 9 is $k\pi$, and $k =$ _____

(75) The seventh triangular number is _____

(76) $286 \times 28 =$ _____

(77) What is the distance between the points (0, 12) and

(-9, 0)? _____

(78) $\frac{6!}{4!} - 25 =$ _____

(79) $103^2 - 97^2 =$ _____

*(80) 11 square miles = _____ acres

2021 – 2022 University Interscholastic League Junior High Number Sense Test C – Key

(1)	700	*(20)	133000 – 147000	(38)	5621	(59)	48884	
(2)	77	(21)	37	(39)	64	*(60)	456104 – 504114	
(3)	51	(22)	23	*(40)	3953 – 4368	(61)	2	
(4)	11	(23)	$\frac{1}{3}$	(41)	1111	(62)	1320	
(5)	$\frac{11}{20}$			(42)	512	(63)	66	
		(24)	$42\frac{10}{49}$	(43)	4.20	(64)	36	
(6)	161			(44)	8	(65)	$\frac{2}{7}$	
(7)	202	(25)	$11\frac{1}{2}$; 11.5; $\frac{23}{2}$	(45)	14			
(8)	361			(46)	1599	(66)	170	
(9)	160	(26)	7326	(47)	4	(67)	6	
*(10)	237500 – 262500	(27)	-19	(48)	9801	(68)	24	
(11)	49	(28)	20	(49)	165	(69)	52	
(12)	14	(29)	2	*(50)	70340 – 77743	*(70)	1899 – 2098	
(13)	$\frac{9}{11}$	*(30)	118560 – 131040	(51)	-2	(71)	2560	
		(31)	5100	(52)	-24	(72)	$\frac{4}{11}$	
(14)	1300	(32)	90	(53)	54			
(15)	176	(33)	2	(54)	120	(73)	$\frac{7}{18}$	
(16)	2604	(34)	440	(55)	6			
(17)	23	(35)	2640	(56)	220	(74)	891	
(18)	100	(36)	$\frac{1}{25}$	(57)	7	(75)	28	
(19)	1885			(58)	1	(76)	8008	
		(37)	34.00			(77)	15	
						(78)	5	
						(79)	1200	
						*(80)	6688 – 7392	

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 $.\overline{6}$.

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.

SEVENTH AND EIGHTH GRADES

Topic: *Emotional Strength*

Think about what it means to be emotionally strong. How does emotional strength differ from physical strength? Write an essay explaining the difference giving examples to support your opinion.

Topic: *Challenge and Change*

Someone once said that, "If it doesn't challenge you, it doesn't change you." Do you agree or disagree with that statement? Explain your opinion using specific reasons for the way you feel.

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.

SEVENTH AND EIGHTH GRADES

Topic: *Unique Qualities*

Think about the unique qualities your generation possesses. How are people your age different than your parents or grandparents? Write an essay explaining the differences and any advantages or disadvantages you perceive.

Topic: *Waking Up*

Write a creative story that begins with the sentence: When I woke up, the first thing I noticed was that I was not in my house...

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.

SEVENTH AND EIGHTH GRADES

Topic: *Experiencing Success*

Think about a time when you were successful. In an essay, explain why you were successful and what you learned from that experience.

Topic: *True Accomplishment*

The author Maya Angelou once said, "You can only become truly accomplished at something you love." Think about what this quote means. Write an essay explaining its meaning using examples from your own life, the lives of others, or stories you have read to further prove your interpretation.

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
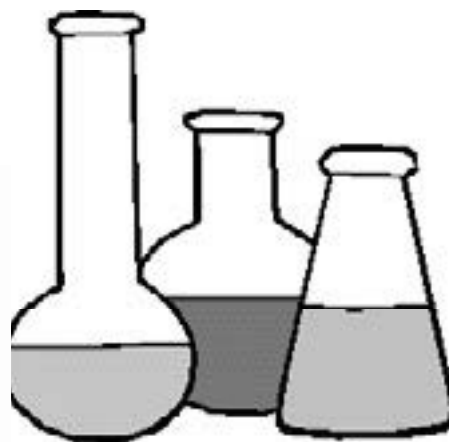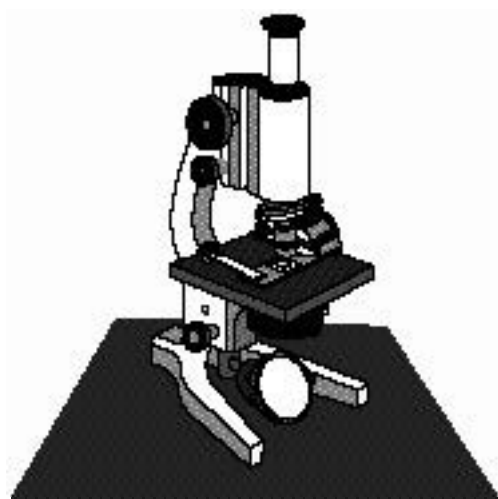
A+ ACADEMICS

University Interscholastic League

Science

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

UNIVERSITY INTERSCHOLATIC 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   C. Order Diptera
    B. Order Hymenoptera   D. Order Orthoptera

2. Aluminum oxide is considered which of the following?
    A. Element   C. Isotope
    B. Mixture   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
   B. Quartz
   C. Amethyst
   D. Selenite

6. __ uses thermal energy from inside the earth.
   A. Nuclear Fission
   B. Solar Energy
   C. Biomass 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
   B. Gravitational to kinetic
   C. Mechanical to thermal
   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?
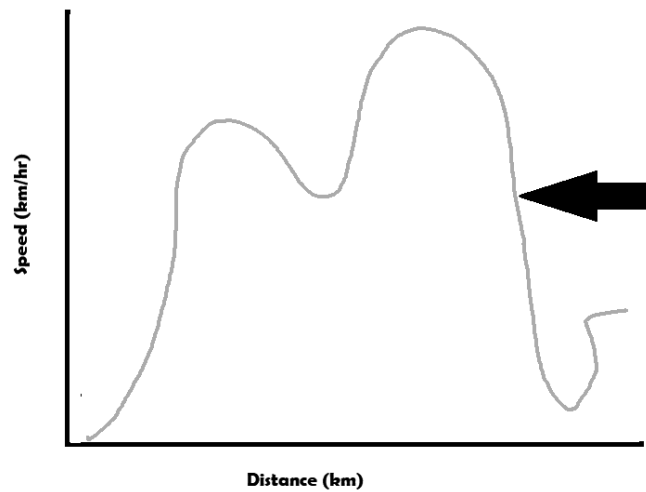
   A. Accelerating
   B. Traveling downhill
   C. Starting cruise control
   D. Stopping at a red light

14. Looking at the model of the Earth, which structure is indicated at Position 5?
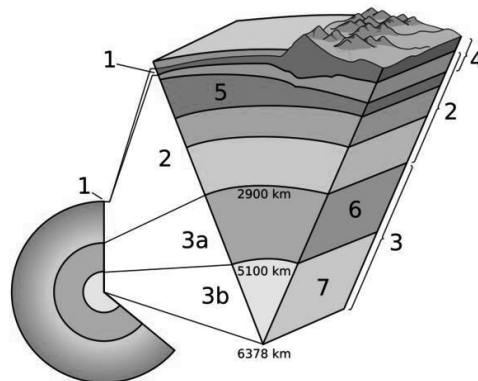
   A. Inner Core
   B. Outer Core
   C. Asthenosphere
   D. Lithosphere

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?
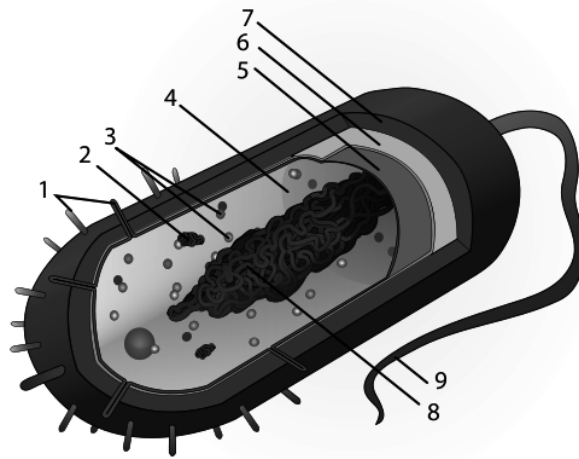
   A. The cell is a prokaryote
   B. The cell is a virus
   C. The cell is a eukaryote
   D. The cell is multicellular

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?
   A. An environment with rapid temperature fluctuations
   B. An environment with very little change
   C. An environment with a variety of climate changes
   D. An environment that contains a large number of potential mates

30. Which one of the following traits cannot be inherited by an offspring?
   A. Cleft chin
   B. Blue eyes
   C. Curly hair
   D. 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?
   A. Geotropism
   B. Phototropism
   C. Thigmotropism
   D. Hydrotropism

32. An atom has 10 protons. Which element would this be?
   A. Neon
   B. Boron
   C. Oxygen
   D. 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?
   A. Phosphorous
   B. Bismuth
   C. Nitrogen
   D. 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?
   A. One car accelerates faster than the others
   B. One car is traveling in the opposite direction
   C. One car is traveling along a curve in the road
   D. 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?
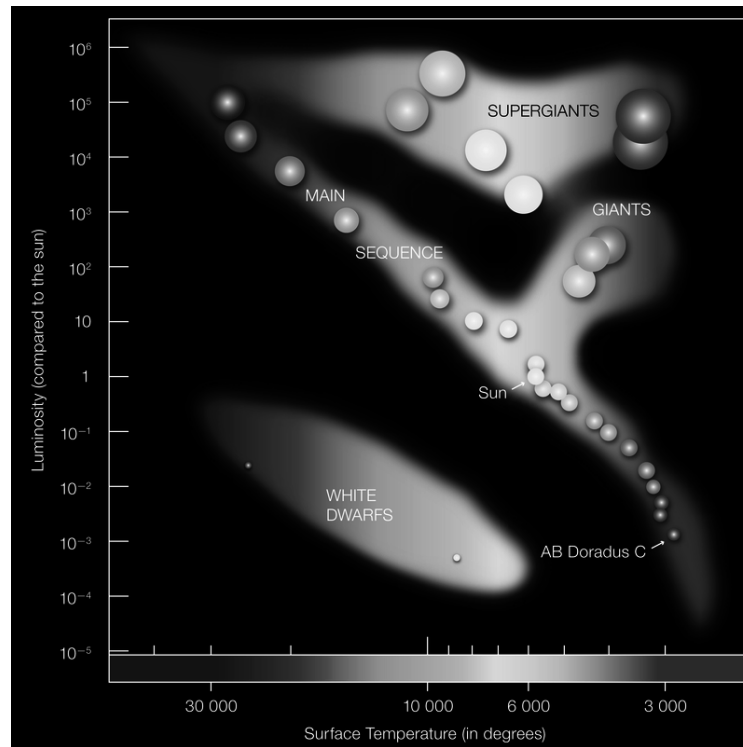
European Southern Observatory (ESO)

    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?
    A. Warm ocean water
    B. Strong cold front
    C. Cool ocean water
    D. Tropical winds

42. A crater that is located in a flat, arid environment will likely change in which of the following ways over time?
    A. Fill with rain water
    B. Will collapse inside its self
    C. Carter will become deeper
    D. Erosion causes carter to become shallower

43. At this type of plat boundary, mountain ranges can form, volcanoes will form parallel to the boundary, and earthquakes are common. Which type of boundary does this best describe?
    A. Convergent
    B. Subduction
    C. Divergent
    D. Transformative

44. How many organisms in this food web only eat producers?
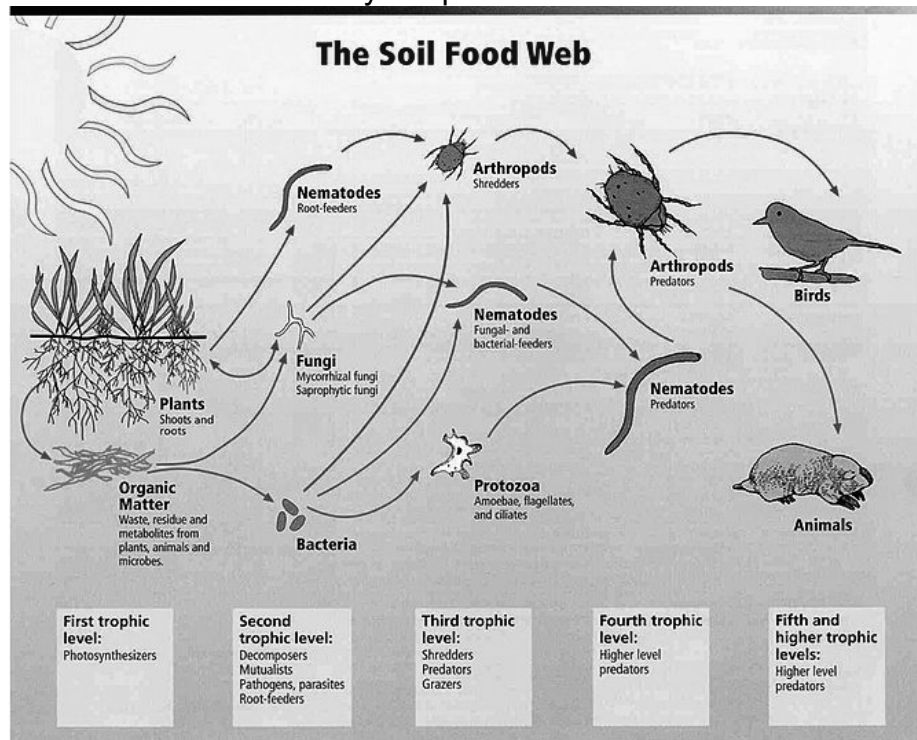
The Soil Food Web

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.

    A. 1   B. 2   C. 3   D. 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 balsa have the masses shown:

1.5 kg

4 kg

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 INTERSCHOLATIC LEAGUE
2021-2022 SCIENCE
FALL/WINTER DISTRICT TEST

1. Which substance in the equation for the reaction of methane is classified as an element?

$$CH_4 + 2O_2 \longrightarrow CO_2 + 2H_2O$$

   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 kg/cm^3
   B. 4.54 kg/cm^3
   C. 220.3 kg/cm^3
   D. .0045 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?
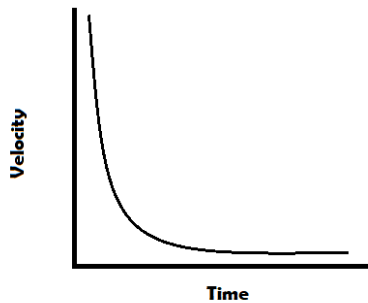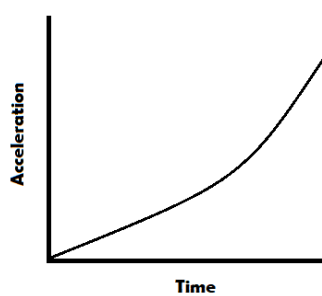
A.
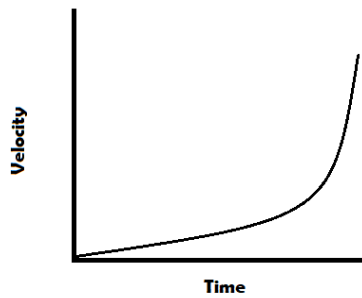
C.
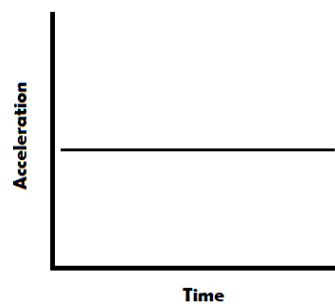
B.

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   ➢ Has cell wall and nucleus
   ➢ Autotropic   ➢ Reproduces sexually or asexually
   Which domain should this organism belong to?
   A. Bacteria   C. Prokaryota
   B. Archaea   D. Eukaryota

15. Photosynthesis is a ___ process.
   A. Anabolic   C. Heterotrophic
   B. Catabolic   D. Isotonic

16. All the interconnected feeding relationships in an ecosystem make up a:
   A. Food interaction   C. Food network
   B. Food chain   D. Food web
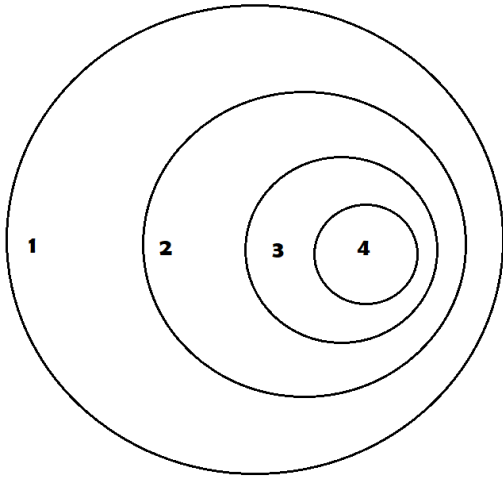
17. Gasoline is made up of organic compounds. What are the main elements in many organic compounds?
   A. He, C, Na   C. C, H, O
   B. Na, H, N   D. Ar, O, He

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 artic 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?
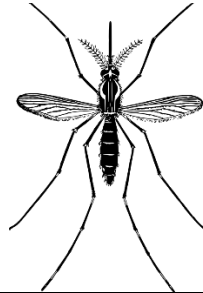   A. Seasonal flooding in a wetland
   B. Harvesting a corn crop
   C. A fire caused by lightning in a grassland
   D. Cattle grazing in a field

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   C. Order Orthoptera
B. Order Hymenoptera   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. Thykoloid
D. Nucleus

28. The excretory system in humans performs a function similar to that of what in a plant?
A. Shoot system   C. Skeletal system
B. Root 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
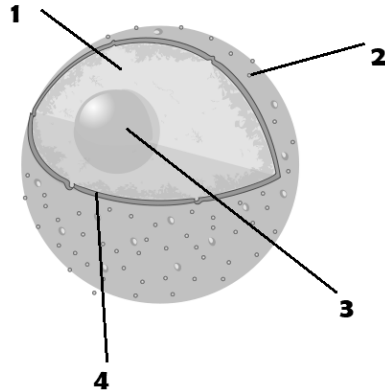
38. A demonstration uses a flashlight and tennis ball to show the phases of the lunar cycle. What would be the best to add to this model?
   A. Asteroid
   B. Sun
   C. Earth
   D. Comet

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
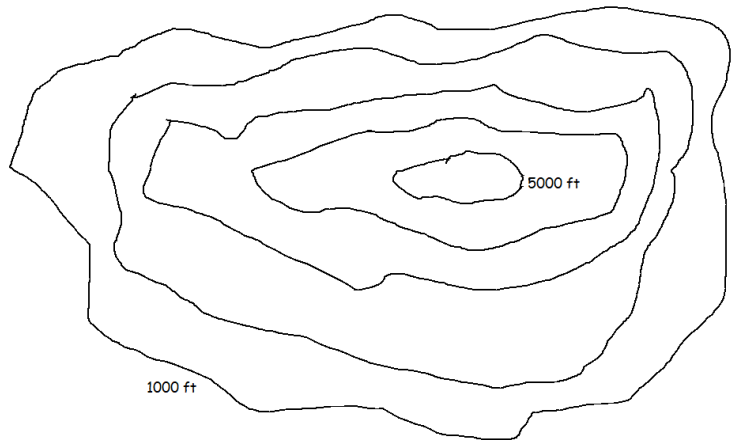
43. Hurricane's form over the oceans. Which area would most likely produce a violent storm system?
   A. Tropic of cancer
   B. Tropic of Capricorn
   C. Artic circle
   D. Equator

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

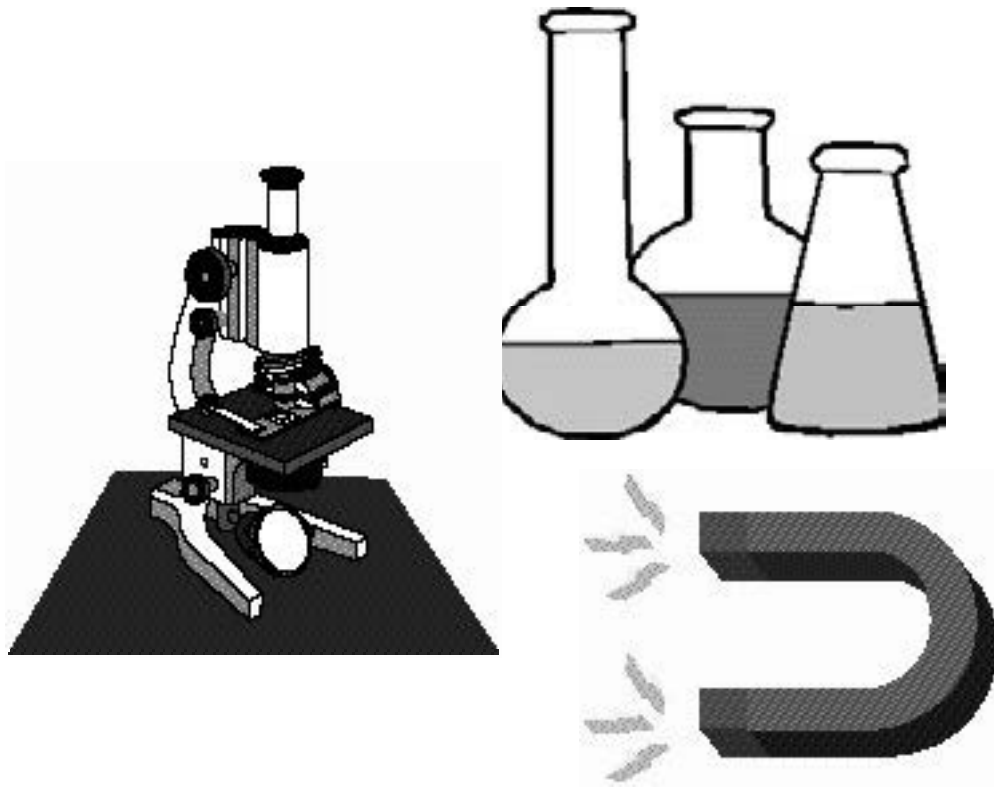Answer Key

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
UNTIL TOLD TO DO SO**

UNIVERSITY INTERSCHOLATIC 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   C. 1.2 km/hr
   B. .83 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
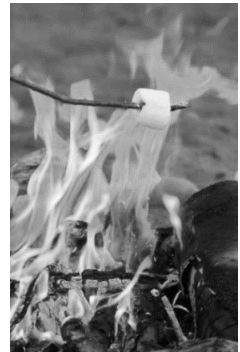
10. Which list correctly characterizes organisms that are classified as mammals?
    A. Unicellular, prokaryotic, autotrophic
    B. Unicellular, eukaryotic, heterotrophic
    C. Multicellular, prokaryotic, autotrophic
    D. Multicellular, eukaryotic, heterotrophic

11. Which one of the following tectonic plated listed is not one of the major tectonic plates?
    A. Caribbean plate   C. Eurasian plate
    B. North American 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   C. Jupiter and Saturn
    B. Mars and Jupiter   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   C. Basaltic fissure eruptions
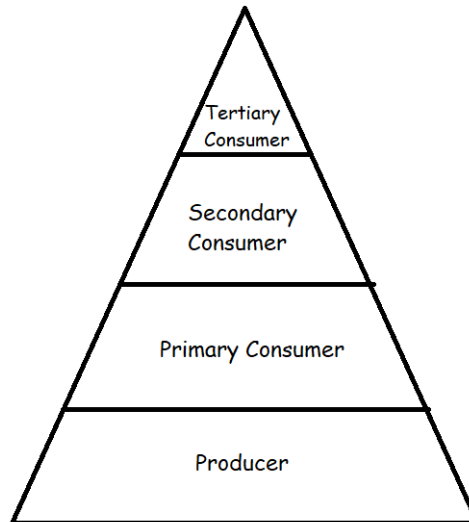   B. Highly explosive volcanoes   D. Sea floor spreading

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   C. 3
B. 2   D. 4

20. Mechanical weathering produces which of the following?
A. Clay minerals   C. Smaller particles
B. Quartz   D. Calcium carbonate

21. While energy can be transformed or transferred, the total amount of energy will
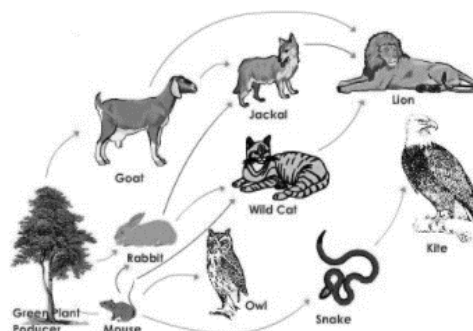A. Remain constant
B. Constantly increase
C. Constantly decrease

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.
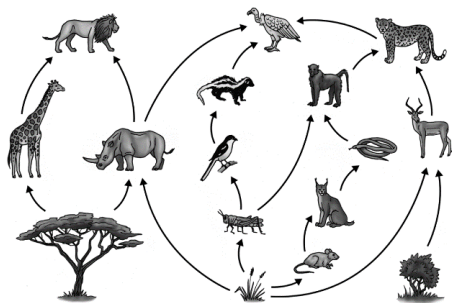
Ecosystem 1   **Ecosystem 2**

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   C. Mitochondria
    B. Nucleus   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   C. Nervous
    B. Integumentary   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   C. Evolution, natural selection
    B. Isolation, speciation   D. Degration, genetics

28. Which of the following is not one of the main terrestrial biomes?
    A. Tundra   C. Grassland
    B. Temperature brush   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   C. Smilius toothus
B. Smilius upsetius   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   C. Seasonal allergies
    B. Downs syndrome   D. Cystic fibrosis

32. Haploid is a term used to describe a type of cell that contains:
    A. RNA   C. 2 sets of chromosomes
    B. 1 set of chromosomes   D. A nucleus

33. Stimuli and response are related, which of the following best represents this correctly?
    A. Crime and punishment   C. Trial and error
    B. Rise and fall   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.

$$C_8H_{11}NO_3$$

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 C. 5 m/s^2
    B. 1.25 m/s^2 D. .05 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.
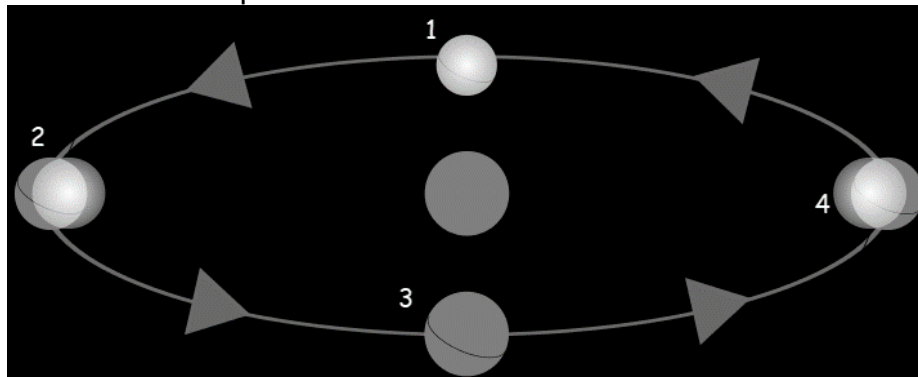
The northern hemisphere will experience the beginning of spring when Earth is at position –
A. 1
B. 2
C. 3
D. 4

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 representation to determine the symbiotic relationship demonstrated.
    A. Parasitism
    B. Mutualism
    C. Commensalism
    D. Predation
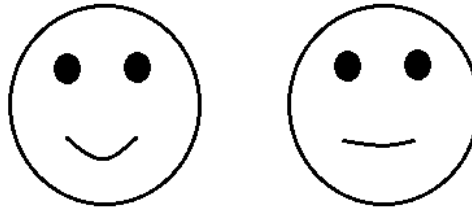
46. Which of the following units is the largest?
    A. Petameter
    B. Megameter
    C. Gigameter
    D. Terameter

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 cm^3
    D. 1 dm^3

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?

A.

B.

C.

D.
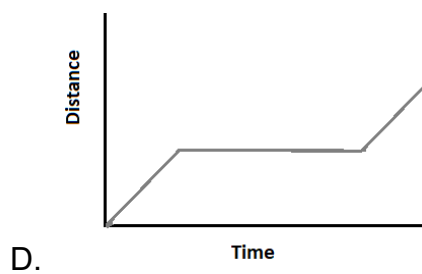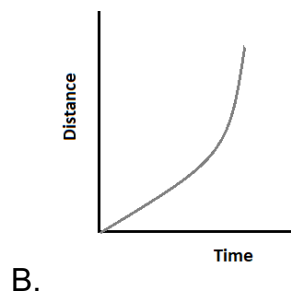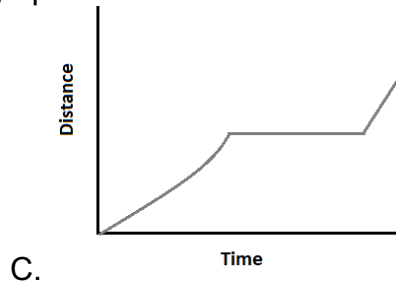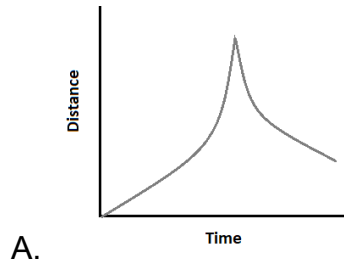
50. Which graph best illustrates a reaction in which energy is released?

A.

B.

C.
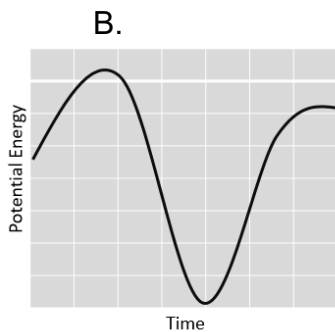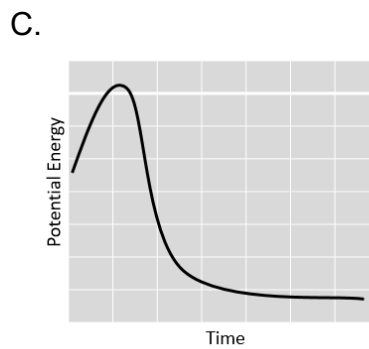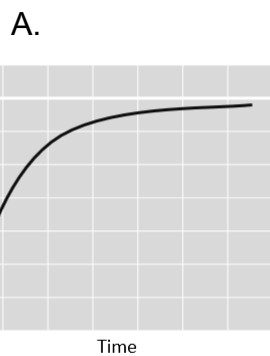
UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-2022 SCIENCE
SPRING TEST

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	

A+ ACADEMICS

UIL

University Interscholastic League
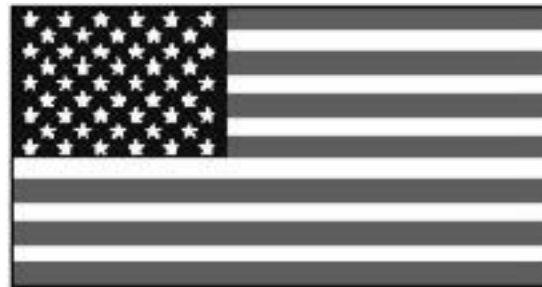
Social Studies
grades 7 & 8

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

UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 7 & 8

North

Immigrant labor
Industrial economy
Wanted tariffs to protect industry

South

Slavery
Agricultural economy
Opposed tariffs because it increased the
   price of goods

1. How did these differences affect the nation?
   a. Eliminated the need for foreign alliances
   b. Strengthened the economy
   c. Led to sectionalism
   d. Decreased the need for a strong military

2. Why did Texas suffer less than other Confederate States?
   a. More industries
   b. Fewer battles were fought in the state
   c. Numerous transportation routes
   d. Better communication

3. How was society changed in Texas following the Civil War?
   a. Suffered the loss of many Texans
   b. Immigration decreased
   c. Abundant supplies increased the need for export sources
   d. Large educational institutions grew in number

4. Why was Galveston vital to the Confederacy?
   a. Valuable mines
   b. Large manufacturing plants
   c. Railroad hub
   d. If left in Union control, Northern forces could easily sweep into Texas

5. What was the outcome of the Battle of Sabine Pass?
   a. Union troops drove the Texans back to the mainland
   b. Texas troops turned back the invading gunboats
   c. Union troops received reinforcements
   d. Texas forces surrendered

6. Who was the West Point graduate that led a group of Texans in some of the most important battles of the Civil War?
   a. Jefferson Davis
   b. Ranald Mackenzie
   c. Pendleton Murrah
   d. John Bell Hood

7. Which Texas governor left office to join the Confederate army?
   a. Richard Coke
   b. James Throckmorton
   c. Francis Lubbock
   d. Elisha Pease
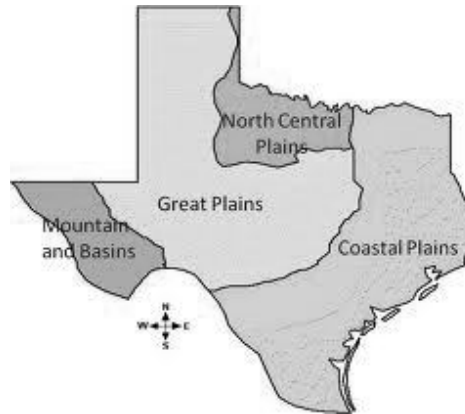
8. What natural region in Texas is known as one of the flattest areas on the Earth?
   a. Great Plains
   b. Coastal Plains
   c. Mountains and Basins
   d. North Central Plains

- **Largest city in Texas**
- **Has the fourth-largest population in the United States**
- **Third-largest seaport in the nation**
- **Home to M.D. Anderson Medical Center**

9. All of the above statements describe which of the following cities?
   a. Fort Worth
   b. Amarillo
   c. Dallas
   d. Houston

10. Where in Texas is this historical landmark?
    a. Austin
    b. El Paso
    c. Midland
    d. Brownsville

11. What is the highest point in the Mountains and Basins region of Texas?
    a. Pikes Peak
    c. Mount Everest
    b. Guadalupe Peak
    d. Denali

12. Why do some Texans use reservoirs and aquifers for its water?
    a. Desalinization of ocean water is too costly
    b. Rivers frequently flood
    c. Few natural lakes
    d. Distance from ocean

13. How did early settlers change and adapt to the environment of the Piney Woods?
    a. Settlers cut down trees to make room for crops
    b. Planted crops close to water sources
    c. Terraced land to keep soil from eroding
    d. Used steel plows to cut through tough sod

14. Who is the leader of the executive branch of the Texas government?
    a. Mayor
    c. Sheriff
    b. Governor
    d. County Judge

Texas Judicial System

Supreme Court   **Court of Criminal Appeals**
Courts of Appeals
District Courts
Regular and Special County Courts
?

15. What legal body finishes the chart?
    a. Senate
    b. Department of Health and Human Services
    c. Municipal Courts
    d. Texas Education Agency

16. What source of income for schools was created with a two-million-dollar appropriation by the Texas Legislature and the sale of public lands?
    a. General Fund
    b. Special Revenue Fund
    c. Capital Projects Fund
    d. Permanent School Fund

An Ordinance:
To dissolve the union between the State of Texas and the other States, united under the compact styled "The Constitution of the United States of America."

17. How is ordinance defined in this title?
    a. Artillery
    b. A change made to a law, bill, or document
    c. A direction or command of an authoritative nature
    d. A request to have a case heard again before a higher court or judge

18. When was the Ordinance of Secession signed between Texas and the United States?
    a. October 21, 1862
    b. January 1, 1863
    c. May 13, 1865
    d. February 1, 1861

19. Which Southern port was NOT declared to be in insurrection against the United States on April 2, 1863?
    a. New Orleans
    b. Savannah
    c. Biloxi
    d. Charleston

20. Why did the House of Representatives of the Congress of the United States state it was involved in the Civil War?
    a. To make the United States economically self-sufficient
    b. To defend and maintain the supremacy of the Constitution and to preserve the Union
    c. Over control of the Northwest Territory
    d. To distribute land to individual owners

21. How were the people who had revolted against the United States to be dealt with if they did not voluntarily become friends?
    a. Payment of land and a mule
    b. Sentenced to prison
    c. Evacuated to Oklahoma
    d. By absolute military power

22. Where did the last land action of the Civil War take place?
    a. Palmito Ranch
    b. Galveston
    c. Red River
    d. Sabine Pass

?

Brig. Gen. James Slaughter   **Col. John Salmon (Rip) Ford**

23. What title finishes the chart?
    a. Union commanders of the Brownsville area
    b. Confederate commanders of the Brownsville area
    c. United States cabinet members
    d. Texas leaders of Union troops

24. How long did the action last at the Battle of Palmito Ranch?
    a. 18 minutes
    b. 30 minutes
    c. 4 hours
    d. 6 hours

25. When did sectionalism start to become a major issue?
    a. South Carolina wanted to leave the Union over the tariff
    b. Erie Canal created a water route between New York City and Buffalo, New York
    c. Monroe Doctrine was signed
    d. When Missouri applied for statehood

26. Who became the Commanding General of the Union Army after Vicksburg?
    a. William T. Sherman
    b. Ulysses S. Grant
    c. George Pickett
    d. Hiriam Rhodes Revels

27. _____ was the first African American Congressional Medal of Honor recipient.
    a. William Carney
    b. Bose Ikard
    c. Toussaint L'Ouverture
    d. John Conyers

April 12, 1861   **April 6, 1862**   **April 25, 1862**   **September 17, 1862**
?   **Shiloh**   **New Orleans**   **Antietam**

28. What battle of the Civil War finishes this timeline?
    a. Bull Run
    b. Spotsylvania
    c. Fort Sumter
    d. Atlanta

29. Which battle turned the tide of the Civil War in favor of the North by splitting the South in two?
    a. Vicksburg
    b. Cold Harbor
    c. The Wilderness
    d. Stones River

"This dust was once the man,
Gentle, plain, just and resolute, under whose cautious hand,
Against the foulest crime in history known in any land or age,
Was saved the Union of these States." - Walt Whitman

30. Who was memorialized in this selection?
    a. Andrew Johnson
    b. James Buchanan
    c. John Quincy Adams
    d. Abraham Lincoln

31. Why did some Northern workers and immigrants oppose slavery?
    a. Decreased the demand for housing
    b. Contributed capital to the development of business
    c. Economic threat to them by fearing they would take their jobs
    d. They took higher paying positions

32. How were plantations able to produce cash crops like rice and tobacco?
    a. Required little to no labor
    b. Its soil and year-round growing season
    c. Water sources were sparse
    d. Creation of hybrid seeds and fertilizer

33. What two problems were especially bad in the South during the Civil War?
    a. Abundant food and money
    b. Numerous jobs and transportation routes
    c. Lack of building material and water
    d. Food shortages and inflation

34. Who wanted to find a way to keep South Carolina from leaving the Union over the issue of tariffs and his answer was the Doctrine of Nullification?
    a. Andrew Jackson
    b. Daniel Webster
    c. John C. Calhoun
    d. Thomas Jefferson

35. Where is the lowest place on the earth's surface?
    a. Dead Sea
    b. Red Sea
    c. Mediterranean Sea
    d. North Sea

36. Which European country's coastline includes many fjords, valleys that are inlets of the sea, that provides sheltered harbors and beautiful scenery that is popular with tourists?
    a. Pakistan
    b. Norway
    c. Nicaragua
    d. Mexico

37. Who is an entrepreneur?
    a. Young worker who learned a trade or skill from a master teacher
    b. Military ruler
    c. Person who travels from place to place when extra help is needed to plant or harvest crops
    d. A person who organizes and operates a business, taking on greater than normal financial risks in order to do so

38. What African nation is the world's largest producer and exporter of gold?
    a. Peru
    b. Pakistan
    c. South Africa
    d. Belgium

39. Who is one of the world's top sugar producers and is located about 90 miles south of Florida?
    a. China
    b. Cuba
    c. Portugal
    d. Ghana

40. What new technological innovation has made the world seem smaller?
    a. Internet
    b. Telegraph
    c. Railroad
    d. Stagecoach

UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 7 & 8

Answer Key

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

University Interscholastic League

Social Studies
grades 7 & 8

DO NOT OPEN TEST
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UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 7 & 8

1. Why did Southerners argue they had the right to ignore tariffs and other federal laws?
   a. Dawes General Allotment Act
   b. States' rights
   c. Cotton Diplomacy
   d. New Deal

2. What is a tariff?
   a. Group of soldiers on horseback
   b. Major crime
   c. To try to persuade legislators about an issue
   d. A tax or duty to be paid on a particular class of imports or exports

3. How did Texans deal with the scarcity of goods during the Civil War?
   a. Industries produced more goods
   b. Foreign trade decreased
   c. Made more items by hand
   d. Increased price of imported goods

4. What political party was developing in Texas during Congressional Reconstruction?
   a. Republican   c. Democratic
   b. Libertarian   d. Green

?

Only Texan to serve in Confederate cabinet   Postmaster General

5. What title finishes the chart?
   a. Richard Coke   c. Edward Clark
   b. Francis Lubbock   d. John H. Reagan

BATTLE HONORS:

TEXAS CIVIL WAR BATTLEFIELDS

6. Why was Sabine Pass a strategic location during the Civil War?
   a. Location of Texas government
   b. Union planned to go through this site to capture Houston and Galveston
   c. Major industries were located here
   d. Contained valuable mines

7. _____ was the second-highest ranking officer in the Confederate army until his death in battle.
   a. Albert Sidney Johnston   c. B.F. Terry
   b. Samuel Bell Maxey   d. John R. Baylor

8. What natural region in Texas, west of the Pecos River, is dry but has a dramatic landscape?
   a. North Central Plains   c. Mountains and Basins
   b. Great Plains   d. Coastal Plains

- **Some of the busiest rail yards in the nation**
- **Major processing and transportation center for livestock and farm products**
- **Manufacturing industries that specialize in the manufacture of airplanes, electronic equipment and helicopters**
- **Home to Texas Christian University**

9. All of the above statements describe which of the following cities?
   a. Fort Worth   c. Denton
   b. Abilene   d. Wichita Falls

10. Where do Alpine and Marfa serve as entrance points to one of the most popular tourist areas in Texas?
    a. Padre Island National Park   c. Big Bend National Park
    b. Angelina National Forest   d. Caverns of Sonora

11. Which city is home to this historical landmark?
    a. Midland
    b. San Antonio
    c. Odessa
    d. El Paso

12. How have Texans been able to provide water to its homes, farms and industries?
    a. Numerous natural lakes
    b. Desalinization of ocean water
    c. Buying water from other states
    d. Texans built reservoirs and used the state's aquifers

13. What new technology made Texas more appealing to people in cooler climates and increased Sunbelt migration?
    a. Assembly line
    b. Light bulb
    c. Air conditioning
    d. Telephone

- **Make laws**
- **Propose constitutional amendments**
- **May bring impeachment charges**

14. Which government officials have these duties and powers?
    a. House of Representatives
    b. Senate
    c. County Judge
    d. Mayor

15. The state of Texas has 254 counties. Each county is divided into four precincts. What are precincts?
    a. Jury that decides if a person accused of a felony should be indicted
    b. Rule by military authority
    c. Temporary
    d. County subdivisions

16. How do local school districts fund their operations?
    a. Sales taxes
    b. Property taxes
    c. Endowments
    d. Income taxes

"the compact styled "The Constitution of the United States of America" be, and is hereby repealed and annulled;"- Texas Ordinance of Secession

17. What is the best definition for the term annulled?
    a. Loyalty
    b. To form into a legal body
    c. To join in a secret agreement
    d. Make of no effect; cancel

18. Where was the Ordinance of Secession signed between Texas and the United States?
    a. Nacogdoches
    b. Goliad
    c. Austin City
    d. Waco

19. What grievance was stated by Texas against the United States in its Ordinance of Secession?
    a. It failed in giving protection either to the people or to their property
    b. Made alliances with neighboring nations against them
    c. Taxed Texas people more than other states
    d. Closed ports in Houston and Brownsville

20. When did the President proclaim that the insurrection had ended in the State of Texas?
    a. September 15, 1863
    b. April 2, 1866
    c. July 1, 1862
    d. November 12, 1864

21. Who was the President of the United States that proclaimed that the insurrection that existed in the State of Texas was at an end?
    a. Ulysses S. Grant
    b. James Buchanan
    c. Abraham Lincoln
    d. Andrew Johnson

22. Why was the Battle of Palmito Ranch important?
    a. Turned the tide of the Civil War in the South
    b. Occurred more than a month after the surrender of Robert E. Lee
    c. Bloodiest battle of the Civil War
    d. First victory in the Civil War for the South

23. How were Confederates able to get supplies into Brownsville?
    a. Land supplies at Bagdad and then transport them 25 miles to Matamoros to be shipped to Brownsville
    b. Overland from Louisiana
    c. Down the Sabine River
    d. Land supplies at Houston and then transport them to San Jacinto to be shipped to Brownsville

24. What was happening at the same time as the Battle of Palmito Ranch?
   a. Gettysburg Address was being given
   b. Emancipation Proclamation was being signed
   c. Confederate governors of Arkansas, Louisiana, Missouri and Texas were authorizing Kirby Smith to disband his armies and end the war
   d. Thirteenth Amendment was ratified

Development of Sectionalism

North	South
Mostly agricultural, industry and commerce	Plantation farming
?	Slave labor
Favored tariffs	Opposed tariffs

25. Which source of labor best finishes the chart?
   a. Children
   c. Women
   b. Immigrants
   d. Elderly

- **Hero in the War with Mexico**
- **United States Senator**
- **President of the Confederacy**

26. All of the above statements describe what political leader?
   a. Henry Clay
   c. Stephen Douglas
   b. Sam Houston
   d. Jefferson Davis

27. _____ was the first Hispanic American Congressional Medal of Honor recipient.
   a. Juan Seguin
   c. Philip Bazaar
   b. Hector Garcia
   d. Benito Rodriguez

28. Where were the first shots of the Civil War fired?
   a. Fort Sumter
   c. Bull Run
   b. Vicksburg
   d. Atlanta

29. What battle dashed the hopes for a Confederate victory in the North?
   a. Shiloh
   c. Chickamauga
   b. Stones River
   d. Gettysburg

30. Who assassinated Abraham Lincoln?
    a. William Seward
    b. John Wilkes Booth
    c. Dr. Samuel Mudd
    d. Edwin Booth

31. Why did the South develop little industry?
    a. Few natural resources
    b. Little capital to build industries
    c. Wealthy planters made great profit on the labor of their slaves from trade
    d. Lack of energy sources

32. Plantations were self-sufficient. What is the best definition of self-sufficient?
    a. Nearly everything that planters, their families and their workers needed was produced on the plantation
    b. Refusal to buy certain goods
    c. Bought goods from a store that sells everything from clothing to furniture to hardware
    d. Method of production that brought many workers and machines together into one building

33. What two measures did the Union pass to make their economy stronger?
    a. Conscription and established labor unions
    b. Established the first income tax and issued a new paper currency
    c. Bonuses for volunteers and increased tariffs on imports
    d. Enacted a poll tax and reduced government officials pay

"Our Union---next to our liberty, the most dear: may we all remember that it can only be preserved by respecting the rights of the states and distributing equally the benefits and burdens of the Union."

34. At a birthday celebration for Thomas Jefferson, who answered Andrew Jackson's toast with this famous statement on states' rights?
    a. Alexander Hamilton
    b. Cabot Lowell
    c. James Monroe
    d. John C. Calhoun

35. _____ separates the Sinai Peninsula from the rest of Egypt and is one of the world's most important waterways.
    a. Erie Canal
    b. Panama Canal
    c. Suez Canal
    d. Strait of Gibraltar

36. What nation has two large walls of mountains- Karakoram Range and Himalaya- that form its northern border and separate South Asia from the rest of Asia?
    a. India
    b. Niger
    c. Chile
    d. Australia

37. Which river in Germany, is one of Europe's most important waterways, is used to transport raw materials and manufactured goods?
    a. Yellow River
    b. Danube River
    c. Nile River
    d. Amazon River

38. Where in Tanzania do tourists visit a famous wildlife preserve?
    a. Dnieper River
    b. Taklimakan Desert
    c. Ellis Island
    d. Serengeti Plain

39. Which part of Canada has more than 60 percent of its population under the age of 25?
    a. Quebec
    b. Alberta
    c. Nunavut
    d. Northwest Territory

40. What has encouraged Spain and Portugal to work hard to catch up economically with other European nations?
    a. European Union
    b. Warsaw Pact
    c. Truman Doctrine
    d. North Atlantic Treaty Organization

UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 7 & 8

Answer Key

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

SPRING DISTRICT 2021-2022
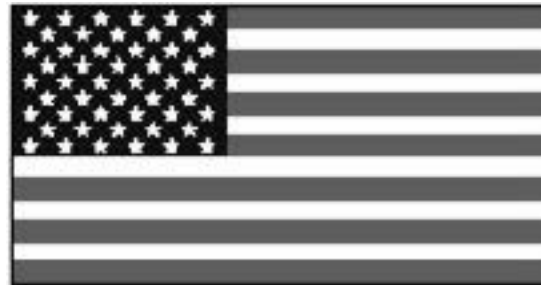
A+ ACADEMICS

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Social Studies
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**DO NOT OPEN TEST
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1. How is states' rights defined?
   a. Economic principle that states that if supply is greater than demand, prices fall, but if demand is greater than supply, prices rise
   b. The interdependence of the nations of the world that has been created as goods, ideas, and people move across the globe
   c. Rights held by states that place limits on the implied powers of the federal government over state governments
   d. Formal joining of one political region to another

2. Why did the North want to increase tariffs?
   a. Safeguard farms
   b. To protect its industries
   c. To decrease immigration
   d. Lower the national debt

3. How did the Civil War affect the economy of Texas?
   a. Expanded Industries increased the variety of products
   b. New transportation routes prevented a disruption in trade
   c. Provided new sources for products
   d. Naval blockade prevented trade causing hardship

4. What were some of the social effects of Reconstruction on Texas?
   a. Improved education, civil rights and positions of political power for African Americans
   b. Decreased number of industrial jobs
   c. Fewer colleges and universities
   d. Religious movement spread throughout the state

5. Why did some Confederate forces continue to fight after Lee's surrender?
   a. Increased migration from the North
   b. Thought winning the war was still possible
   c. Because of an agreement with Great Britain
   d. To obtain mineral resources in Texas

6. _____ was elected Governor of Texas in 1861 only to join the Confederate army in 1863.
   a. Francis Lubbock
   b. James Throckmorton
   c. Richard Coke
   d. Elisha Pease

7. Who received a special medal for his actions in the Confederate victory at Sabine Pass?
   a. Lawrence Ross
   b. Felix Robertson
   c. John Wharton
   d. Dick Dowling
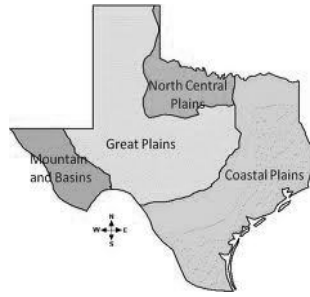
8. Which natural region includes the Neches, Sabine and Trinity Rivers as well as Toledo Bend and Sam Rayburn Reservoirs?
   a. Great Plains
   b. Mountains and Basins
   c. Coastal Plains
   d. North Central Plains

9. What noticeable feature in the Great Plains is a hard bed of rock below the soil?
   a. Caprock
   b. Davis Mountains
   c. Hueco Tanks State Historical Park
   d. Spindletop Hill

10. Which ranch is the largest one on the South Texas Plain, stretching for more than 1 million acres?
    a. XIT Ranch
    b. Circle L Ranch
    c. JA Ranch
    d. King Ranch

11. What city replaces the question mark?

?
Military bases   Trade with Mexico boosts its economy
One of the largest cities in Texas

   a. Austin
   b. El Paso
   c. Fort Worth
   d. Midland

12. What action did Olmsted suggest Texans take to modify the environment?

"These bottom lands bordering the Trinity River are among the richest in Texas… High up, in the region of the Forks of the Trinity, are lands equally suitable to cotton, wheat and corn." Frederick Law Olmsted, Journey through Texas

   a. Build industry
   b. Construct fewer homes
   c. Farm the land
   d. Build highways

13. Which new technology helped increase ranching and farming in dry West Texas?
    a. Solar farms
    b. Looms
    c. Metal fence posts
    d. Windmills

14. Who has these duties and powers?

       * **Make laws**
       * **Propose constitutional amendments**
       * **Must approve all executive appointments**
       * **Preside over impeachment trials**

    a. Senate   c. House of Representatives
    b. County Judge   d. Mayor

15. What is the function of the court system?
    a. Enforce the laws passed by the legislature
    b. Decide legal cases by interpreting and applying the law
    c. Pass laws
    d. Educate the youth

16. What makes up about 55 percent of the state's tax revenue?
    a. Bonds   c. Sales tax
    b. License fees   d. Motor fuels tax

17. When did the last land action of the Civil War take place?
    a. April 5, 1864   c. February 2. 1863
    b. May 13, 1865   d. September 19, 1863

BATTLE HONORS:

TEXAS

TEXAS CIVIL WAR BATTLEFIELDS

18. Where did the last land action of the Civil War take place?
    a. Palmito Ranch   c. Galveston
    b. Red River   d. Sabine Pass

19. What did the Proclamations of the 15th and 19th of April, 1861 by the President of the United States declare?
    a. The first formal proposal to unite the American colonies
    b. Border dispute between New Mexico and Texas was settled
    c. This law offered 160 acres of land free to anyone who agreed to live on and improve the land for five years
    d. Laws of the United States were opposed in the States of South Carolina, Georgia, Alabama, Florida, Mississippi, Louisiana and Texas

20. How was the term **writ of habeas corpus** defined in this selection?

"the rebellion was declared to be still existing, and the privilege of the writ of habeas corpus was in certain cases suspended throughout the United States" Proclamation of the 15th of September, 1863

    a. Grant nationality
    b. A law that required men to serve in the military or be drafted
    c. To bring a prisoner or other detainee before the court to determine if a person's imprisonment or detention is lawful
    d. Protected a family's home and up to 50 acres of land from seizure for debts

21. According to the Proclamation dated April 2, 1866, what was the only state where there was armed resistance to the authority of the United States?
    a. Pennsylvania   c. Virginia
    b. Texas   d. California

22. Who was to ratify the Texas Ordinance of Secession for it to take effect?
    a. Texas Senate   c. People of Texas
    b. Governor of Texas   d. Only citizens of Austin

23. Which District of Texas was to hold their election on the Ordinance of Secession on February 19, 1861?
    a. El Paso   c. Nacogdoches
    b. Goliad   d. Victoria

24. When, if ratified, would the Texas Ordinance of Secession take effect and be in force?
    a. February 23, 1861   c. February 19, 1861
    b. March 30, 1861   d. March 2, 1861

25. What is sectionalism?
    a. The placing of the interests of one's own region ahead of the interests of the nation as a whole
    b. Seeking to return control of the government to the people, to restore economic opportunities and to correct injustices in American life
    c. Belief that government should be based on the consent of the people
    d. The policy by which stronger nations extend their economic, political or military control over weaker nations or territories

26. What elected office replaces the question mark about Ulysses S. Grant?

Ulysses S. Grant
Commanding General of the Union Army   ?

    a. Senator from Ohio
    b. President of the United States
    c. Chief Justice of the Supreme Court
    d. President of the Confederacy

27. Why might Lincoln have been disappointed after the Union victory at Gettysburg?
    a. Lee was able to furnish his troops with shoes from a store in Gettysburg
    b. Union fleet was sunk
    c. Because General Meade did not finish off the army of General Lee
    d. Southern troops cut off supplies to the Union forces

28. What was the last major Confederate stronghold on the Mississippi River?
    a. Stones River   c. Chickamauga
    b. Shiloh   d. Vicksburg

29. Where was Abraham Lincoln assassinated?
    a. Library of Congress   c. Smithsonian Institute
    b. Ford's Theatre   d. Adams House

30. Who are sharecroppers?
    a. Farmers who lacked land and necessary supplies and they promised a large part of the crop to the landowner in exchange for these items
    b. People who rent land to grow crops
    c. Oil operators who worked on their own in search of new fields
    d. One who herds or cares for livestock on the range

31. Starting in the 1660s, why did planters turn to slavery to work the plantations?
    a. Immigrants came in large numbers
    b. Children were no longer needed to work for families to be able to pay rent and buy food
    c. Indentured white servants started to leave the plantations
    d. Elderly refused to work in the fields

32. Where did these actions cause the most severe food shortages?

    - **Many farmers were fighting**
    - **Trains were used to carry war materials**
    - **Army seized food and other supplies for its own needs**

    a. North   c. West
    b. Midwest   d. South

33. How did the North deal with the problem of inflation?
    a. People took advantage of wartime demand and sold goods for high prices
    b. Sold goods to Europe at lower prices
    c. Instituted a rebate program for goods sold
    d. Lower taxes

34. Which debate in the United States Senate over the Doctrine of Nullification is considered one of the greatest debates in American history?
    a. Lincoln-Douglas Debate   c. Kennedy-Nixon Debate
    b. Webster-Hayne Debate   d. Jefferson-Hamilton Debate

35. What is the location of these bodies of water that replaces the question mark?

?
Bosporus   **Sea of Marmara**   **Dardanelles**

  a. Water sources in Brazil   c. Important waterways in Turkey
  b. Called the African Straits   d. Largest water sources in Australia

36. Where is Mount Everest, the highest mountain in the world, which attracts thousands of climbers and hikers each year?
  a. Chile   c. Congo
  b. Belgium   d. Nepal

37. What tiny country lies within the Italian "boot"?
  a. Cyprus   c. Crete
  b. San Marino   d. Belize

38. Which African nation is one of the world's major oil-producing countries while more than one-third of its people lack jobs and live in poverty?
  a. Ecuador   c. Nigeria
  b. Luxembourg   d. Pakistan

39. What North American Free Trade Agreement nation has cheap labor that could encourage many manufacturers to move their businesses there?
  a. Canada   c. United States
  b. Columbia   d. Mexico

40. Which people, who were nomads raising camels and other livestock, have been forced to settle on farms that engineers have made profitable by a large irrigation and shipping canal?
  a. Turkmenistan   c. France
  b. Siberia   d. Cuba

UNIVERSITY INTERSCHOLASTIC LEAGUE
2021-22 A+ SOCIAL STUDIES
SPRING DISTRICT — GRADES 7 & 8

Answer Key

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

21. B
22. C
23. A
24. D
25. A
26. B
27. C
28. D
29. B
30. A
31. C
32. D
33. A
34. B
35. C
36. D
37. B
38. C
39. D
40. A