

2020-2021

**This booklet contains
tests for**

Art (grades 4-6)

Calculator Applications (grades 6-8)

Chess Puzzle (grades 2-8)

Creative Writing (grade 2)

Dictionary Skills (grades 5-6)

Listening Skills (grades 5-6)

Maps, Graphs & Charts (grades 5-6)

Mathematics (grades 6-8)

Number Sense (grades 4-6)

Ready Writing (grades 3-6)

Science (grades 6-8)

Social Studies (grades 5-6)

Storytelling (grades 2-3)

Duplicate materials as needed.

**For contest rules, refer to the
A+ Handbook or UIL website.**

**ELEMENTARY ACADEMIC
STUDY MATERIALS BOOKLET**

www.uiltexas.org/aplus



UNIVERSITY INTERSCHOLASTIC LEAGUE

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 60. Initials _____

_____ out of 60. Initials _____

Papers contending to place:

_____ out of 60. Initials _____

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



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

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

Circle Grade Level: 4 5 6 7 8

Art Elements

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. True False

11. True False

12. True False

13. True False

14. True False

15. True False

Art History

16.

17.

18.

19.

20.

21.

22.

23.

24.

25. True False

26. True False

27. True False

28. True False

29. True False

30. True False

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 60. Initials _____

_____ out of 60. Initials _____

Papers contending to place:

_____ out of 60. Initials _____

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



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

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.

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. _____

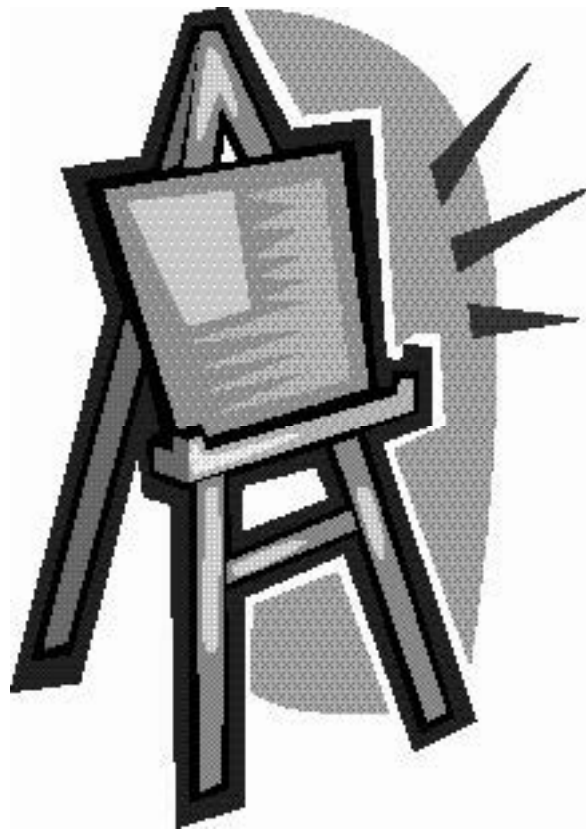
15. _____

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Art Contest

grades 4, 5, & 6

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

2019-2020 Invitational Art Test Part B - Grades 4-6
Art Elements Section

1. *Young Woman with Peonies* would fit best into the _____ subject category.
2. *Taos* was painted with
 - a. acrylics.
 - b. oils.
 - c. pastels.
 - d. none of the above
3. The mood of *Mrs. Richard Hogarth* could best be described as
 - a. lively.
 - b. dignified.
 - c. light-hearted.
 - d. excited.
4. What color would an artist add to a bright blue to make it look dull and gray?
5. The figure of the boy behind the musician in *The Rommel-Pot Player*
 - a. balances the composition.
 - b. looks serious and important.
 - c. is more brightly lit than the other children.
 - d. makes viewers quickly feel connected to the scene.
6. A barrier that slows viewers' eyes as they move through *Lady at the Paris Exposition* is the
 - a. Eiffel Tower.
 - b. wall.
 - c. woman's figure.
 - d. table with the mug.
7. A rhythm of _____ lines helps keep viewers moving around the image in *Amsterdam Harbor Scene*.
8. The brushstrokes in *Ceres (Summer)* can best be described as
 - a. equal and separate.
 - b. rough and broken.
 - c. soft and feathery.
 - d. smooth and invisible.

9. In which of these paintings did the artist use a background that creates a shallow visual space and pushes the subject forward?
- The Annunciation*
 - The Skater (Portrait of William Grant)*
 - The Concert*
 - Still Life with Oranges, Jars, and Boxes of Sweets*

True/False

10. Light shines on the figures in *Madonna and Child* from multiple directions at once.
11. Something in a painting that repeats and creates a kind of pattern is called rhythm.
12. Formal order and balance are important to the composition of *Marcotte d'Argenteuil*.
13. *Nature Abhors a Vacuum* is a smaller painting than *By the Seine* is.
14. The artist used heavy, dark outlines in *Madonna and Child with Saint Martina and Saint Agnes* to give his figures an “other worldly” look.
15. The form of a famous Renaissance statue provided a starting point for the composition of *Synchromy in Purple Minor*.

Art History Section

16. Which painter worked at an earlier time, La Farge or Leyster?
17. Things that were invented during the Contemporary art history period include
- airtight paint tubes.
 - television.
 - the printing press.
 - none of the above
18. _____ believed that nature should be seen as geometric shapes, like cubes, cones, and spheres.
19. The live animals Frans Snyders often painted in his still lifes were meant to
- show his skill.
 - serve as symbols.
 - add interest and movement.
 - create dramatic images.

20. Which of these painters was French?
- a. Corot
 - b. Cross
 - c. Marcoussis
 - d. all of the above
21. A favorite subject for Hassam was
- a. Bible stories.
 - b. genre scenes.
 - c. portraits.
 - d. rainy streets.
22. Turner became famous as a teenager for works he created with _____ paints.
23. One of the members of the group known as Hudson River School was
- a. Sargent.
 - b. Marieschi.
 - c. Kensett.
 - d. Wilson.
24. Sir Peter Paul Rubens lived most of his life in the city of
- a. Antwerp, the Netherlands.
 - b. Rome, Italy.
 - c. Paris, France.
 - d. London, England.

True/False

25. The father and son of Jacques de Gheyn II were both engravers.
26. *Sunset on the Lagoon, Venice* and *Pansies in Washington* were both created in the Pointillist style.
27. Botticelli's name comes from the city where he was born.
28. Neoclassical painters often based their figures on ancient Greek or Roman statues.
29. For decades after his death, Caillebotte was considered more important as an art collector than as a painter.
30. *Cardinal Bandinello Sauli, His Secretary, and Two Geographers* is an example of a Baroque portrait.

**2019-2020 Invitational Art Test - Grades 4-6
(Part B)**

Answer Key

Elements		History
1. genre	(51)	16. Leyster (35, 48)
2. d	(64, 67)	17. b (57)
3. b	(39)	18. Cézanne (55)
4. orange	(16)	19. c (36)
5. a	(33)	20. d (52, 58, 61)
6. b	(56)	21. d (63)
7. vertical	(17, 37)	22. watercolor (47)
8. c	(38)	23. c (49)
9. d	(43)	24. a (31)
10. F	(24)	25. T (32)
11. T	(11, 19)	26. F (58, 65)
12. T	(46)	27. F (25)
13. F	(60, 66, 67)	28. T (41)
14. F	(28)	29. T (53)
15. T	(62)	30. F (26)

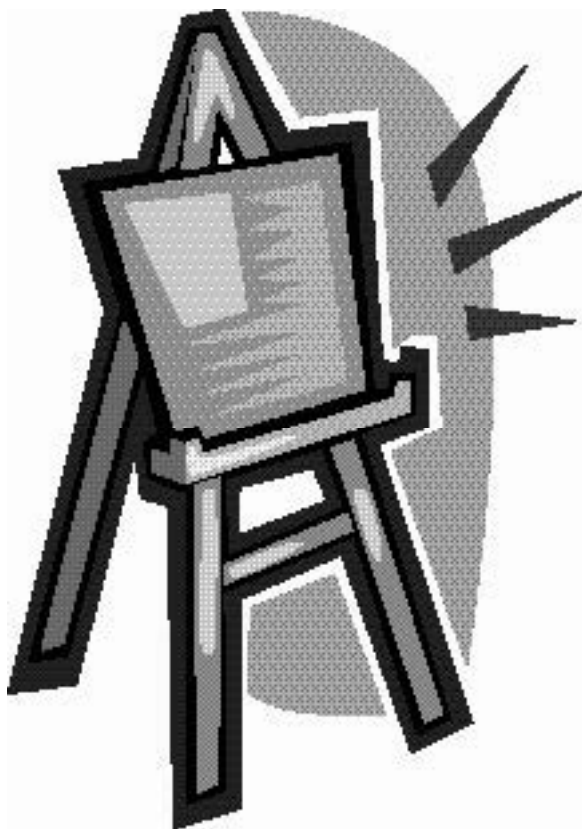
Numbers in parentheses are page numbers where answers can be found in the *Art Smart Bulletin* for 2019-2020 and 2020-2021. Correct spelling is not required for short answers.

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Art Contest

grades 4, 5, & 6

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

2019-2020 Fall/Winter District Art Test Part B - Grades 4-6
Art Elements Section

1. The colors used to portray *Mrs. Richard Hogarth* are mostly
 - a. warm.
 - b. complementary.
 - c. cool.
 - d. neutral.

2. The mood of *Setting Out to Fish* is
 - a. peaceful.
 - b. lively.
 - c. gloomy.
 - d. dramatic.

3. *The Rommel-Pot Player* fits best into the _____ subject category.

4. Thick, rough paint was used in *Keelmen Heaving in Coals by Moonlight* for the
 - a. boats.
 - b. buildings.
 - c. moon.
 - d. water.

5. *Abraham Leading Isaac to Sacrifice* was painted with oils on _____.

6. In which of these paintings are realistic details least important?
 - a. *The Concert*
 - b. *Taos*
 - c. *The Adoration of the Christ Child*
 - d. *Marchesa Brigida Spinola Doria*

7. Painting roads wide in the foreground and growing narrower in the background is a technique artists use to show _____.

8. The painted frame included in *Portrait of Hendrik III, Count of Nassau-Breda*, is used to
 - a. focus attention on the sitter's face.
 - b. visually push the sitter toward viewers.
 - c. show three-dimensional form.
 - d. all of the above

9. In the composition of *Still Life with Peaches and Old Glass*, a triangle shape
- adds a feeling of stability.
 - focuses viewers' attention.
 - serves as a symbol.
 - creates a feeling of energy.

True/False

10. In the composition of *The Coast at Beverly*, the visual weight of the rocky coastline is balanced by a distant sailboat.
11. Artists often use light to focus viewers' attention on an important part of a painting.
12. Color was used in *Banks of the Seine at Médan* mainly to show emotion.
13. Textures of feathers and dishes in *Still Life with Grapes and Game* offer an example of contrast.
14. The artist chose a point of view for *Kaaterskill Falls* that encourages viewers to use their imagination.
15. *View of the Dogana and Santa Maria della Salute* and *Sunset on the Lagoon, Venice* are both seascapes.

Art History Section

16. Giovanni Bellini is admired for his religious images and his
- genre scenes.
 - landscapes.
 - portraits.
 - still lifes.
17. *Marcotte d'Argenteuil* shows characteristics of the _____ style.
18. Until she was a teenager, Alma Thomas lived in the state of
- California.
 - Georgia.
 - New York.
 - Pennsylvania.
19. The Industrial Revolution occurred during the _____ period of art history.

20. Macdonald-Wright thought painters should use color to create a sense of
- wind and weather.
 - realistic perspective.
 - three-dimensional form.
 - rhythm and harmony.
21. Which of these works was created first?
- Amsterdam Harbor Scene*
 - Tugboat on the Seine, Chatou*
 - The Departure of the Boatman*
 - By the Seine*
22. Sebastiano served as an official for the
- Catholic Pope.
 - King of England.
 - Spanish Royal Academy.
 - Count of Nassau-Breda.
23. _____ was particularly famous for his work with stained glass.
24. Which of these artists was a founding member of the British Royal Academy?
- Watteau
 - Meléndez
 - Wilson
 - none of the above

True/False

25. Stuart was often in debt because he had few customers and they did not pay well for portraits.
26. El Greco often painted figures with a stretched look to give them a spiritual feel.
27. One thing Bazille and Caillebotte had in common was that both came from wealthy families.
28. The nationality of Marcoussis is considered to be Polish because of his birthplace.
29. The materials Fra Carnevale used to create *The Annunciation* first became available to artists during the Renaissance.
30. Helen Frankenthaler worked in the painting style known as Abstract Expressionism.

**2019-2020 Fall/Winter District Art Test - Grades 4-6
(Part B)**

Answer Key

Elements			History		
1.	d	(39)	16.	c	(24)
2.	b	(54)	17.	Neoclassical	(46)
3.	genre	(33)	18.	b	(65)
4.	c	(47)	19.	Modern	(41)
5.	copper	(30, 67)	20.	d	(62)
6.	b	(64)	21.	a	(37)
7.	perspective	(11, 18)	22.	a	(26)
8.	d	(27)	23.	La Farge	(48)
9.	a	(63)	24.	c	(44)
10.	T	(49)	25.	F	(45)
11.	T	(17)	26.	T	(28)
12.	F	(55)	27.	T	(51, 53)
13.	T	(9, 18, 36)	28.	F	(61)
14.	T	(50)	29.	F	(23)
15.	F	(40, 58)	30.	T	(66)

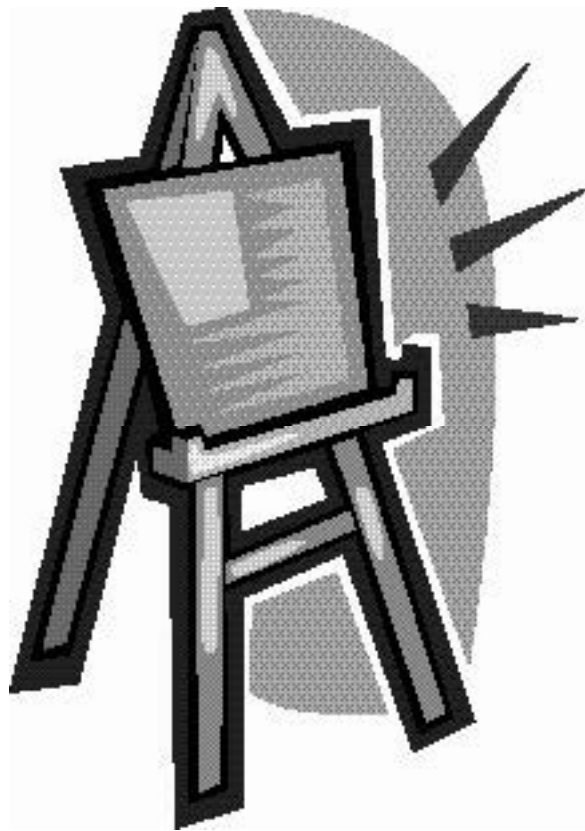
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SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Art Contest

grades 4, 5, & 6

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2019-2020 Spring District Art Test Part B - Grades 4-6
Art Elements Section

1. Because of its shape, *The Adoration of the Christ Child* is called a _____.
2. Curved lines can give a painting a feeling of
 - a. strength.
 - b. tension.
 - c. energy.
 - d. peacefulness.
3. A _____ provides a point of visual focus in *Sunset on the Lagoon, Venice*.
4. The angel in *The Annunciation* is holding a
 - a. dove.
 - b. lamb.
 - c. lily.
 - d. lion.
5. Foreground and background are separated in *Kaaterskill Falls* by
 - a. flowers.
 - b. trees.
 - c. a wall.
 - d. falling water.
6. To keep eyes moving around *Vase of Flowers with a Curtain*, the artist used
 - a. color.
 - b. light.
 - c. lines.
 - d. shapes.
7. Which of these works is an abstract painting?
 - a. *The Musician*
 - b. *Pansies in Washington*
 - c. *Tugboat on the Seine, Chatou*
 - d. all of the above
8. *Abraham Leading Isaac to Sacrifice* is _____ in size than *The Concert* is.

9. The artist used a limited range of colors in *Amsterdam Harbor Scene* in order to
- create a quiet, peaceful mood.
 - show how sunlight affects color.
 - picture a cloudy winter day.
 - emphasize light and atmosphere.

True/False

10. The artist suggested movement in *The Skater (Portrait of William Grant)* by the way he pictured the sitter's coat.
11. Bright light helps lead viewers into the distance in *Solitude*.
12. Objects painted in blue appear closer than others painted in orange.
13. Showing less detail in the background than in the foreground helps create a sense of depth in *Flowers on a Window Ledge*.
14. In *Young Boy in Profile*, the artist created curls and highlights in her sitter's hair by scraping through wet paint to let lower layers show through.
15. Poses of individuals in *Cardinal Bandinello Sauli, His Secretary, and Two Geographers* create a formal image.

Art History Section

16. *The Coast at Beverly* is an example of the _____ style.
17. Genre scenes first became popular subjects for art in
- France.
 - Italy.
 - the Netherlands.
 - the United States.
18. Helen Frankenthaler's father was a
- painter.
 - judge.
 - doctor.
 - accountant.
19. The nationality of Sir Peter Paul Rubens was _____.

20. A painting by Hogarth is likely to be a
- a. landscape.
 - b. “fête gallante” genre scene.
 - c. religious image.
 - d. none of the above
21. An artist who is best-known for working in the Neoclassical style is
- a. Watteau.
 - b. Sargent.
 - c. Ingres.
 - d. Bazille.
22. One artist who was particularly skilled at picturing natural smiles and laughter was
- a. El Greco.
 - b. Hals.
 - c. Jiménez Aranda.
 - d. Macdonald-Wright.
23. In a magazine poll, critics and museum directors once voted _____
America’s greatest artist.
24. Bellini influenced later artists with his
- a. emphasis on color and light.
 - b. invention of new subjects.
 - c. concern with drawing and lines.
 - d. method of pouring paints.

True/False

25. Besides painting and collecting art, Caillebotte was a champion bicycle racer.
26. The printing press was invented during the Baroque period of art history.
27. Turner was skilled in working with both watercolors and oil paints.
28. Jan Gossart received all of his art training in his native land.
29. Corot was a member of a group of artists known as the Hudson River School.
30. *Still Life with Peaches and Old Glass* is an earlier work than *Still Life with Grapes and Game*.

**2019-2020 Spring District Art Test - Grades 4-6
(Part B)**

Answer Key

Elements			History		
1.	tondo	(25)	16.	Romantic	(49)
2.	c	(17)	17.	c	(29)
3.	sail [or] sailboat	(58)	18.	b	(66)
4.	c	(23)	19.	Flemish	(31)
5.	b	(50)	20.	d	(39)
6.	a	(32)	21.	c	(46)
7.	b	(65)	22.	b	(33)
8.	smaller	(30, 34, 67)	23.	Marin	(64)
9.	d	(37)	24.	a	(24)
10.	T	(45)	25.	F	(53)
11.	T	(44)	26.	F	(21)
12.	F	(16)	27.	T	(47)
13.	T	(48)	28.	F	(27)
14.	T	(35)	29.	F	(52)
15.	F	(26)	30.	F	(36, 63)

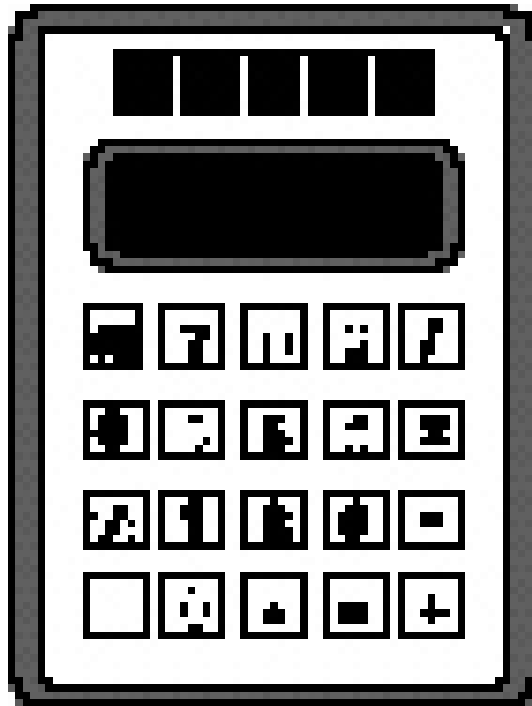
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INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
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How to Write the Answers

A. For all problems except stated problems as noted below—write three significant digits.

1. Examples (* means correct but not recommended)

Correct: 12.3, 123, 123.*, 1.23x10*, 1.23x10^{0*}
1.23x10¹, 1.23x10⁰¹, .0190, 0.0190, 1.90x10⁻²

Incorrect: 12.30, 123.0, 1.23(10)², 1.23·10², 1.230x10²,
1.23*10², 0.19, 1.9x10⁻², 19.0x10⁻³, 1.90E-02,

answers written in parentheses(), brackets[] or braces{} are incorrect

2. Plus or minus one digit error in the third significant digit is permitted.

B. For stated problems

1. Except for integer and dollar sign problems, answers to stated problems should be written with three significant digits.

2. Integer problems are indicated by (integer) in the answer blank. Integer problems answers must be exact, no plus or minus one digit, no decimal point or scientific notation.

3. Dollar sign (\$) problems should be answered to the exact cent, but plus or minus one cent error is permitted. Answers must be in fixed notation. The decimal point and cents are required for exact-dollar answers.

2020 University Interscholastic League MS/JH Calculator Contest A

20X-1. $-1600 - 1080$ ----- 1= _____

20X-2. $-29 - 12 - 29$ ----- 2= _____

20X-3. $826 + 962 + 613$ ----- 3= _____

20X-4. $\pi - 25 - 3 - 14$ ----- 4= _____

20X-5. $-232 - 78 - 205 - 27$ ----- 5= _____

20X-6. $50.3 + 258 - 162 - 98.1 + 209$ ----- 6= _____

20X-7. $(0.928 + 0.876 - \pi) - (1.23 + 1.7)$ ----- 7= _____

20X-8. $0.792 + 0.799 - 0.382 + 0.598 + 0.413$ ----- 8= _____

20X-9. $390 \times 148 \times 366$ ----- 9= _____

20X-10. $56.3 \times 26.6 \times 887 \times 1260$ ----- 10= _____

20X-11. What is the product of twenty-five hundredths and three-eighths? ----- 11= _____

20X-12. A race lasted 14.8 minutes. How many seconds did it take to complete this race? ----- 12= _____ s

20X-13. A rectangular shaped piece of wood measured $10' 6\frac{3}{4}"$ by $5\frac{3}{4}"$ on one of its faces. What is the perimeter of this face? ----- 13= _____ in

20X-14. $(474)[321 \times 172 \times 86]$ ----- 14= _____

20X-15. $25 - [118/17 + 18.4]$ ----- 15= _____

20X-16. $\{-69/155\} \left[\frac{136}{56 + 191} \right]$ ----- 16= _____

20X-17. $\left[\frac{-123}{148} \right] [(50/131) - 0.0431]$ ----- 17= _____

20X-18. $\left[\frac{44/230}{144/87} \right] \{0.161 + 0.138 - 0.0698\}$ ----- 18= _____

20X-19. $\left[\frac{(0.0199 + 0.014)}{173/239} \right] \left[\frac{0.00942}{0.0141} \right]$ ----- 19= _____

20X-20. $(0.00326)[134/97 \times 127/49] - 0.00863$ ----- 20= _____

20X-21. $\frac{(\pi)(9/7)(16/4)}{66}$ ----- 21= _____

20X-22. $\frac{(0.252 + 1.21 - 1.71)}{\{(5.43 - 1.39)/(4.36 \times 10^{-4})\}}$ ----- 22= _____

20X-23. $\frac{[-(2170 + 2180)(2980 - 2950)]}{(20.3/(40700))}$ ----- 23= _____

20X-24. Albert bought a 12-foot long board that actually measured 11' 11 ³/₄" long. He cut from this board three pieces that each measured 8 ⁵/₁₆" in length. He then cut the remaining length off the board into 5 equal length pieces. How long was the length of each of the 5 pieces? 24= _____ in

20X-25. The cost of the renovation to our church was \$1.4 million. If there are 375 families and the cost is to be paid off in 60 months, how much on average should each family contribute each month to pay off the church renovation debt? ----- 25\$ _____

20X-26. Genny went shopping and purchased a box of 50 bags of chips that cost \$13.84; a bag of hot dog buns that cost \$3.02 for 24 buns, a bag of beef-franks that cost \$24.98 for 80 franks; a package of 35 sodas that cost \$11.42 and a box of a variety of cookies that cost \$11.98 for 60 bags of cookies. How much did it cost for one hot dog bun plus one beef-frank, one bag of chips, one soda and one bag of cookies? ----- 26=\$ _____

20X-27. $\frac{(\pi + 1.21)(0.192 + 0.554)}{(1.55 \times 10^{11})}$ ----- 27= _____

20X-28. $\frac{(0.0362 - 0.0151)(49.2 + 16.8)}{(5.90 \times 10^{11})}$ ----- 28= _____

20X-29. $(2.62)[[0.359/(0.353)][0.0481/(0.108)]]$ ----- 29= _____

20X-30. $\frac{1}{-1360} + \frac{1}{(521 - 2000)}$ ----- 30= _____

20X-31. $(30.3)[(9.19 \times 10^8) - (6.74 \times 10^8)]$ ----- 31= _____

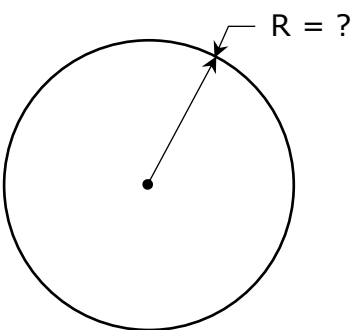
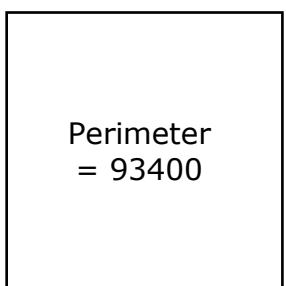
20X-32. $\frac{1}{0.974} + \frac{1}{(\pi)(1.11 - 0.728)}$ ----- 32= _____

20X-33. $\left[\frac{1/154}{1/68.3}\right][5.73 \times 10^6]$ ----- 33= _____

20X-34. $1/(0.0617 - 0.0645) - 1/(-0.00281)$ ----- 34= _____

20X-35. Noah was baking some cookies to sell. If his expenses came to \$12.75 for 4 dozen cookies, what is the least he should sell each cookie to make a 75% profit? ----- 35= _____ ¢ (Integer)

20X-36. One day the cost of regular gasoline was \$2.19%₁₀ per gallon. The next day the cost was \$2.39%₁₀ per gallon. What percent increase did this represent? ----- 36= _____ %

<p>20X-37.</p> <p style="text-align: center;">CIRCLE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Circumference = 0.00593</p> <p>20X-37 = _____</p>	<p>20X-38.</p> <p style="text-align: center;">SQUARE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Area = ?</p> <p>20X-38 = _____</p>
--	---

20X-39. $\frac{(13600 + 8200)^2}{(0.0175 - 0.0505)^3}$ ----- 39= _____

20X-40. $(130 + 272 + 114)^2(27.3 + 9.34)^2$ ----- 40= _____

20X-41. $\left[\frac{1420 + (1/(8.04 \times 10^{-4}))}{(1980/2140) - 0.895} \right]^2$ ----- 41= _____

20X-42. $(1/\pi) \sqrt[4]{\frac{4.44 + 2.89}{0.00519 - 0.00461}}$ ----- 42= _____

20X-43. $(16900) \sqrt{27000 + 17700 + 36600}$ ----- 43= _____

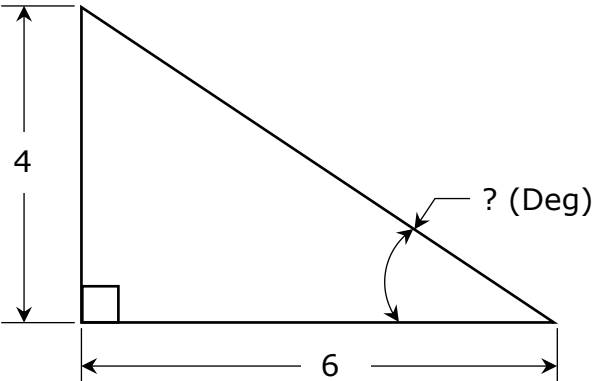
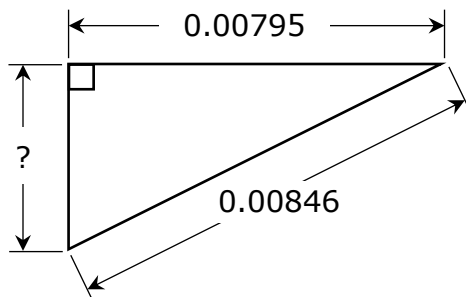
20X-44. $\sqrt{1480 - 628 + 605} - \sqrt{396}$ ----- 44= _____

20X-45. $\left[\sqrt[4]{(3.6/1.6)(1870)} \right]^5$ ----- 45= _____

20X-46. $\frac{1}{\sqrt{305 + 507 + 261}} + \left(\frac{1}{\sqrt{7}} \right)^3$ ----- 46= _____

20X-47. Paige was baking a dozen chocolate chip cookies using a recipe that called for $1 \frac{1}{2}$ cups of all-purpose flour. If she wanted to bake 75 cookies using the same recipe, how much all-purpose flour would she use? (Assume the proportions and size of cookies are the same.) ----- 47= _____ cups

20X-48. Dan discovered that he could lay a pipe up against a vertical wall and it would not slip down as long as the angle between the pipe and the wall did not exceed 49.4° . If the pipe is 10 feet long, what is the maximum distance from the base of the wall that the end of the pipe on the floor can be and the pipe not slip down? ----- 48= _____ ft

<p>20X-49. RIGHT TRIANGLE</p>  <p>20X-49 = _____ Deg</p>	<p>20X-50. RIGHT TRIANGLE</p>  <p>20X-50 = _____</p>
--	---

20X-51. $\frac{(1.17 \times 10^5 + 2.27 \times 10^5 - 1.64 \times 10^5)^3}{\sqrt{0.041 + 0.0536 + 0.0252}}$ ----- 51= _____

20X-52. $\frac{\sqrt{4.46 + \pi + 4.03}}{(22800 - 31700 + 35600)^4}$ ----- 52= _____

20X-53. $\left[\frac{5720 + 1750 + \sqrt{5.29 \times 10^7 + 5.17 \times 10^7}}{32500/35300} \right]^2$ ----- 53= _____

20X-54. $31700 + \sqrt{(48900)(33500)} - (76700 + 41800)$ ----- 54= _____

20X-55. $\sqrt{\frac{(3.86 \times 10^5)(87700)}{(11000)(1.75 \times 10^5)}} - 2.02 + 2.18$ ----- 55= _____

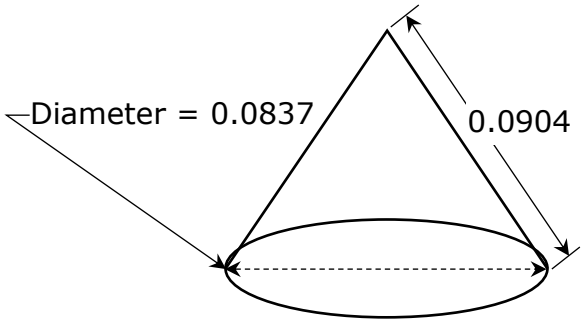
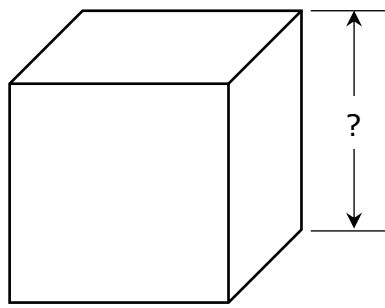
20X-56. $(0.489)^2 \sqrt{(73.4)/(4.05)} - (0.89 + 0.319)$ ----- 56= _____

20X-57. $\sqrt{\frac{(1230)(8930)}{(28.5) + (138)}} - 366$ ----- 57= _____

20X-58. $\sqrt{\frac{1/(3760 - 3740)}{(246)(5070 + 8910)^{-3}}}$ ----- 58= _____

20X-59. A formula for changing a temperature in degrees Fahrenheit to Kelvin is stated as such: Subtract 32 from the given temperature in degrees Fahrenheit, multiply this difference by five-ninths and then add two hundred seventy-three point fifteen hundredths. What is the temperature in Kelvins (K) for an oven temperature of 275° Fahrenheit?---- 59= _____ K

20X-60. Pressure is defined as the amount of force divided by the area to which the force is applied. A can of paint weighs 56.5 pounds (lbs) and has a diameter of 12 inches. This can is then balanced on a cube that measures 4 inches on each side. By what factor is the pressure increased? ----- 60= _____

<p>20X-61. RIGHT CIRCULAR CONE</p>  <p style="text-align: center;">Volume = ?</p> <p>20X-61 = _____</p>	<p>20X-62. SOLID CUBE</p>  <p style="text-align: center;">Cube Total Surface Area = 2.74×10^{31}</p> <p>20X-62 = _____</p>
---	---

20X-63. $\frac{26!}{5!} + 25!$ ----- 63= _____

20X-64. $(117 - \pi)e^{0.24}$ ----- 64= _____

20X-65. $(15900 - 3010)^{-9}(2.47 \times 10^6)$ ----- 65= _____

20X-66. (deg) $[6.05]\tan(158^\circ - 184^\circ)$ ----- 66= _____

20X-67. (rad) $\sin\left[\frac{(320)(\pi)}{(425)(11.2)}\right]$ ----- 67= _____

20X-68. (deg) $\frac{\tan(55^\circ)}{1550 + 2300}$ ----- 68= _____

20X-69. (deg) $\frac{\sin(2.49^\circ) - \tan(2.49^\circ)}{\sin(2.49^\circ)}$ ----- 69= _____

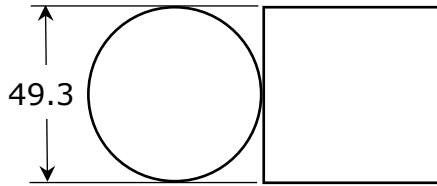
20X-70. $(594 - 309)^{0.416} - 0.383$ ----- 70= _____

20X-71. A spherical shaped piece of putty, with a diameter of 8 centimeters (cm), is pounded flat to form a cylinder that measures 15 centimeters in diameter. How thick is the cylinder? ----- 71= _____ cm

20X-72. If pi is subtracted from a certain number squared, the result is 12.5. What is the positive value of that number? ----- 72 = _____

20X-73.

CIRCLE AND SQUARE

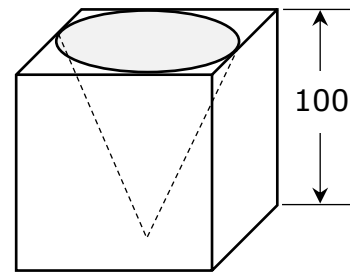


$$\frac{\text{Circle Area}}{\text{Square Area}} = ?$$

20X-73 = _____

20X-74.

CUBE AND RIGHT CIRCULAR CONE CAVITY



$$\text{Remaining Volume} = ?$$

20X-74 = _____

20X-75. $\frac{(1.97)^{0.755}(1.02)^{0.385}}{(68.2 - 18.2)^{-8}}$ ----- 75= _____

20X-76. $\frac{\text{Log}(32 + 169)}{4830 - 1250}$ ----- 76= _____

20X-77. $\text{Log}\sqrt{\frac{57.4 - 13.4}{(438)(327)}}$ ----- 77= _____

20X-78. $\frac{\text{Log}[27500 + (3580)(8.73)]}{3.38 + \text{Log}[1370 + 1430]}$ ----- 78= _____

20X-79. $1 + 3 + 5 + \dots + 863$ ----- 79= _____

20X-80. $\frac{1}{(0.579)} + \frac{1}{3(0.579)^3} + \frac{1}{5(0.579)^5} + \frac{1}{7(0.579)^7}$ ----- 80= _____

2020 University Interscholastic League MS/JH Calculator Contest A Answer Key

$$\begin{aligned} 20X-1 &= -2680 \\ &= -2.68 \times 10^3 \end{aligned}$$

$$\begin{aligned} 20X-2 &= -70.0 \\ &= -7.00 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20X-3 &= 2400 \\ &= 2.40 \times 10^3 \end{aligned}$$

$$\begin{aligned} 20X-4 &= -38.9 \\ &= -3.89 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20X-5 &= -542 \\ &= -5.42 \times 10^2 \end{aligned}$$

$$\begin{aligned} 20X-6 &= 257 \\ &= 2.57 \times 10^2 \end{aligned}$$

$$\begin{aligned} 20X-7 &= -4.27 \\ &= -4.27 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20X-8 &= 2.22 \\ &= 2.22 \times 10^0 \end{aligned}$$

$$20X-9 = 2.11 \times 10^7$$

$$20X-10 = 1.67 \times 10^9$$

$$\begin{aligned} 20X-11 &= 0.0938 \\ &= 9.38 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 20X-12 &= 888 \\ &= 8.88 \times 10^2 \end{aligned}$$

$$\begin{aligned} 20X-13 &= 265 \\ &= 2.65 \times 10^2 \end{aligned}$$

$$20X-14 = 2.25 \times 10^9$$

$$\begin{aligned} 20X-15 &= -0.341 \\ &= -3.41 \times 10^{-1} \end{aligned}$$

$$\begin{aligned} 20X-16 &= -0.245 \\ &= -2.45 \times 10^{-1} \end{aligned}$$

$$\begin{aligned} 20X-17 &= -0.281 \\ &= -2.81 \times 10^{-1} \end{aligned}$$

$$\begin{aligned} 20X-18 &= 0.0265 \\ &= 2.65 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 20X-19 &= 0.0313 \\ &= 3.13 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 20X-20 &= 0.00304 \\ &= 3.04 \times 10^{-3} \end{aligned}$$

$$\begin{aligned} 20X-21 &= 0.245 \\ &= 2.45 \times 10^{-1} \end{aligned}$$

$$20X-22 = -2.68 \times 10^{-5}$$

$$20X-23 = -2.62 \times 10^8$$

$$\begin{aligned} 20X-24 &= 23.8 \\ &= 2.38 \times 10^1 \end{aligned}$$

$$20X-25 = 62.22$$

Dollar Answer

$$20X-26 = 1.24$$

Dollar Answer

$$20X-27 = 2.09 \times 10^{-11}$$

$$20X-28 = 2.36 \times 10^{-12}$$

$$\begin{aligned} 20X-29 &= 1.19 \\ &= 1.19 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20X-30 &= -0.00141 \\ &= -1.41 \times 10^{-3} \end{aligned}$$

$$20X-31 = 7.42 \times 10^9$$

$$\begin{aligned} 20X-32 &= 1.86 \\ &= 1.86 \times 10^0 \end{aligned}$$

$$20X-33 = 2.54 \times 10^6$$

$$\begin{aligned} 20X-34 &= -1.27 \\ &= -1.27 \times 10^0 \end{aligned}$$

$$20X-35 = 47$$

Integer Answer

$$\begin{aligned} 20X-36 &= 9.10 \\ &= 9.10 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20X-37 &= 0.000944 \\ &= 9.44 \times 10^{-4} \end{aligned}$$

$$20X-38 = 5.45 \times 10^8$$

2020 University Interscholastic League MS/JH Calculator Contest A Answer Key

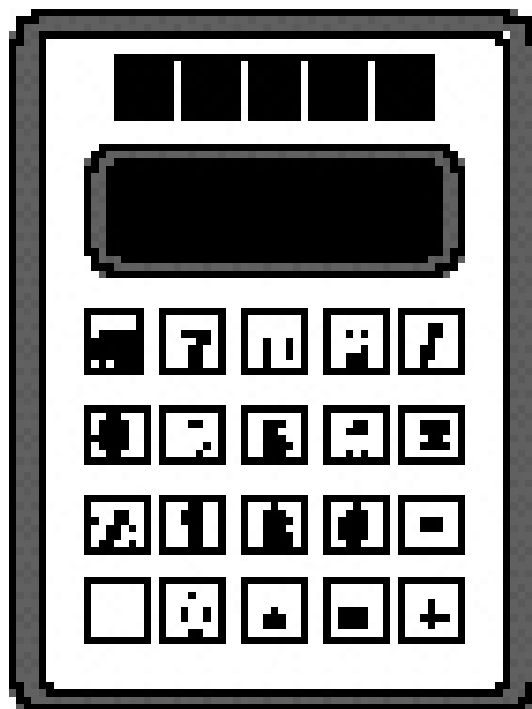
20X-39	= -1.32x10 ¹³	20X-51	= 1.68x10 ¹⁶	20X-61	= 0.000147	20X-73	= 0.785
20X-40	= 3.57x10 ⁸	20X-52	= 6.71x10 ⁻¹⁸	20X-62	= 1.47x10 ⁻⁴	20X-74	= 7.85x10 ⁻¹
20X-41	= 7.76x10 ⁹	20X-53	= 3.69x10 ⁸	20X-63	= 2.14x10 ¹⁵	20X-75	= 738000
20X-42	= 3.37	20X-54	= -4.63x10 ⁴	20X-64	= 1.89x10 ²⁵	20X-76	= 7.38x10 ⁵
20X-43	= 4.82x10 ⁶	20X-55	= -4.35	20X-65	= 145	20X-77	= 6.57x10 ¹³
20X-44	= 18.3	20X-56	= -1.91x10 ⁻¹	20X-66	= 1.45x10 ⁻²	20X-78	= 0.000643
20X-45	= 33900	20X-57	= -1.09	20X-67	= 2.51x10 ⁻³¹	20X-79	= 6.43x10 ⁻⁴
20X-46	= 0.0845	20X-58	= 23600	20X-68	= 0.210	20X-80	= 0.000643
20X-47	= 9.38x10 ⁰	20X-59	= 408	20X-69	= -2.95x10 ⁰	20X-81	= 6.43x10 ⁻⁴
20X-48	= 7.59	20X-60	= 7.07	20X-70	= -2.95x10 ⁰	20X-82	= -1.76
20X-49	= 3.37x10 ⁻¹			20X-71	= 2.10x10 ⁻¹	20X-83	= -1.76x10 ⁰
20X-50	= 0.00289			20X-72	= 2.10x10 ⁻¹	20X-84	= 0.699
	= 2.89x10 ⁻³			20X-73	= 0.000371	20X-85	= 6.99x10 ⁻¹
				20X-74	= 3.71x10 ⁻⁴	20X-86	= 1.87x10 ⁵
				20X-75	= -0.000945	20X-87	= 187000
				20X-76	= -9.45x10 ⁻⁴	20X-88	= 1.87x10 ⁵
				20X-77	= 1.21	20X-89	= 13.1
				20X-78	= 1.21x10 ⁰	20X-90	= 1.31x10 ¹
				20X-79	= 1.52		
				20X-80	= 1.52x10 ⁰		
				20X-81	= 3.95		
				20X-82	= 3.95x10 ⁰		
				20X-83	= 7.07		
				20X-84	= 7.07x10 ⁰		

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Calculator Applications

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

How to Write the Answers

A. For all problems except stated problems as noted below—write three significant digits.

1. Examples (* means correct but not recommended)

Correct: 12.3, 123, 123.*, 1.23x10*, 1.23x10^{0*}
1.23x10¹, 1.23x10⁰¹, .0190, 0.0190, 1.90x10⁻²

Incorrect: 12.30, 123.0, 1.23(10)², 1.23·10², 1.230x10²,
1.23*10², 0.19, 1.9x10⁻², 19.0x10⁻³, 1.90E-02,

answers written in parentheses(), brackets[] or braces{} are incorrect

2. Plus or minus one digit error in the third significant digit is permitted.

B. For stated problems

1. Except for integer and dollar sign problems, answers to stated problems should be written with three significant digits.

2. Integer problems are indicated by (integer) in the answer blank. Integer problems answers must be exact, no plus or minus one digit, no decimal point or scientific notation.

3. Dollar sign (\$) problems should be answered to the exact cent, but plus or minus one cent error is permitted. Answers must be in fixed notation. The decimal point and cents are required for exact-dollar answers.

2020 University Interscholastic League MS/JH Calculator Contest B

20Y-1. $1160 - 412$ ----- 1= _____

20Y-2. $11 - 17 + 14$ ----- 2= _____

20Y-3. $28 + 36.2 + 62.5$ ----- 3= _____

20Y-4. $\pi - 11 + 23 - 12$ ----- 4= _____

20Y-5. $1210 - 1310 - 946 + 167$ ----- 5= _____

20Y-6. $240 + 149 - 168 - 95.6 - 122$ ----- 6= _____

20Y-7. $\pi + 5.16 + 4.75 + 1.42 + 4.67$ ----- 7= _____

20Y-8. $0.361 - 0.592 + 0.867 - 0.55 - 1.46$ ----- 8= _____

20Y-9. $166 \times 329 \times 26.5$ ----- 9= _____

20Y-10. $564 \times 2110 \times 3240 \times 263$ ----- 10= _____

20Y-11. What is the quotient of two-pi divided by 17.9?----- 11= _____

20Y-12. The floor of a gazebo was shaped in the form of a regular hexagon. If each of the sides measured 8' 9", what is the perimeter of the gazebo? ----- 12= _____ ft

20Y-13. In 2016, NASCAR driver, Chase Elliot, drove his Chevrolet 300 miles in 1 hour, 59 minutes and 4 seconds. What was his average speed, in miles per hour (mph), for this race? ----- 13= _____ mph

20Y-14. $(-148)[52 \times 110 \times 124]$ ----- 14= _____

20Y-15. $214 - [34/239 + 0.158]$ ----- 15= _____

20Y-16. $\left[\frac{382}{466}\right][((140/236) - 0.379)]$ ----- 16= _____

20Y-17. $\{128/138\}\left[\frac{100}{17 + 85}\right]$ ----- 17= _____

20Y-18. $\left[\frac{335/377}{215/273}\right]\{13.7 + 16 - 17.6\}$ ----- 18= _____

20Y-19. $\frac{(382/185) + (124/404)}{(0.0113 - 0.00809)}$ ----- 19= _____

20Y-20. $\frac{(3.74 \times 10^{-5})(0.00174)}{15.1} (0.0124 - 0.0271)$ ----- 20= _____

20Y-21. $\frac{(\pi)(5/6)(7/7)}{96}$ ----- 21= _____

20Y-22. $\frac{(1680 \times 1060)/979}{(865 \times 2.30 \times 10^{-4}) + 0.178}$ ----- 22= _____

20Y-23. $\left[\frac{840 + 848}{343 - 616}\right]\left[\frac{499}{1180}\right]$ ----- 23= _____

20Y-24. My pasture is rectangular in shape and measures 200 ft by 1320 feet. The part of the pasture that has grass for harvesting as hay is actually less. If the actual field of grass measures 175 ft by 1210 ft, what percentage of the pasture contains grass? ----- 24= _____ %

20Y-25. Lake Bridgeport has a reservoir storage of 374,657 acre-feet today. One month ago the lake had a reservoir storage of 367,401 acre-feet. What percent increase does this represent? ----- 25= _____ %

20Y-26. Denny decides to build a birdhouse. He uses 8 ft of Cedar board that costs \$8.48 for a 10 ft length; 16" x 12" of plexiglass that costs \$30.98 for a 24" x 48" piece and 2 hinges that cost \$14.98 for a 10-pack of hinges. How much, in materials used, did it cost Denny to build a single birdhouse? ----- 26= \$ _____

20Y-27. $\frac{(5.14 \times 10^{10}) + (8.68 \times 10^{10})}{(-36.6)(8.2) - 300}$ ----- 27= _____

20Y-28. $\frac{(754 - 287)(0.0374 + 0.0317)}{(2.88 \times 10^{11})}$ ----- 28= _____

20Y-29. $(0.00388) \left[(0.706/\pi)(0.00166 + 0.00215) \right]$ ----- 29= _____

20Y-30. $\frac{1}{4.48} + \frac{1}{(6.94 - 5.4)}$ ----- 30= _____

20Y-31. $[0.0094] \left[\frac{1/17.3}{1/(43.7)} \right]$ ----- 31= _____

20Y-32. $(0.00494) \left[\frac{47.5}{(9.50 \times 10^{-14})} \right]$ ----- 32= _____

20Y-33. $\frac{1}{2940} - \frac{1}{4130} + \frac{1}{2670}$ ----- 33= _____

20Y-34. $\left[\frac{1/369}{1/193} \right] + [0.2]$ ----- 34= _____

20Y-35. Mike walked north at a constant speed of 5 miles per hour a distance of 600 ft and then headed west for 750 ft. If Mike then walked back to his starting point, what was his total time walking? ----- 35= _____ min

20Y-36. A quarter dollar coin measures 24.26 millimeters in diameter. How many of these coins could be laid, touching each other, along a wall that measured 10 feet in length? (Note: 2.54 cm = 1 in.) ----- 36= _____ integer

<p>20Y-37. RECTANGLE</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>20Y-37= _____</p>	<p>20Y-38. REGULAR HEXAGON</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>20Y-38= _____</p>
---	---

20Y-39. $(164 + 276 + 300)^2(28.4 + 13.4)^2$ ----- 39= _____

20Y-40. $\frac{(5640 + 5420)^3}{(0.00699 - 0.0309)^2}$ ----- 40= _____

20Y-41. $\sqrt{\frac{12.4 + 2.55}{31.4 - 27}}$ ----- 41= _____

20Y-42. $\sqrt{976} + \sqrt{1730 + 1830} - (\pi)\sqrt{672}$ ----- 42= _____

20Y-43. $(1/\pi)^4 \sqrt[4]{\frac{0.00478 + 0.00525}{0.962 - 0.704}}$ ----- 43= _____

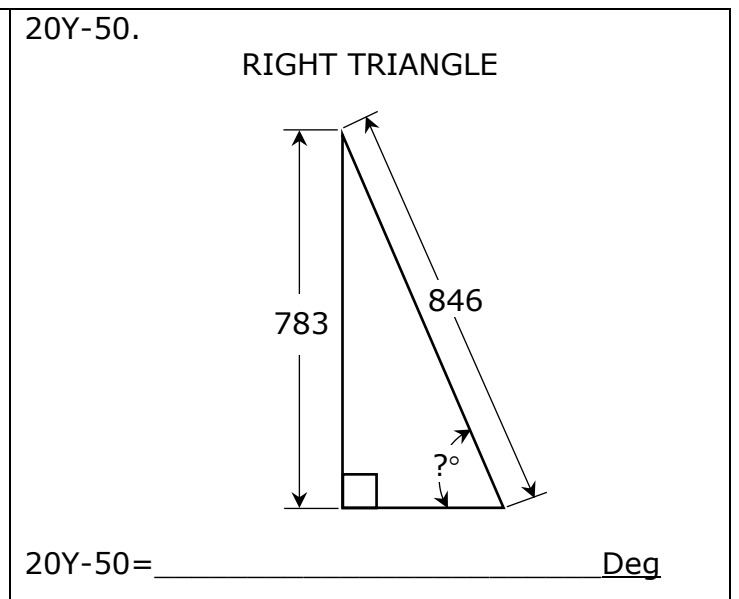
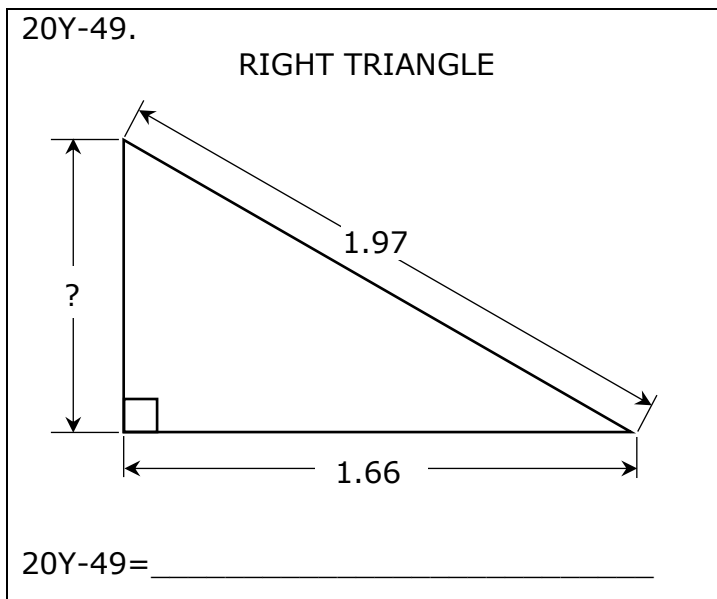
20Y-44. $\sqrt{(99.7/656) + 0.139 - 0.0191}$ ----- 44= _____

20Y-45. $\frac{1}{\sqrt{683 + 332 + 1350}} + \left(\frac{1}{\sqrt{6.92}}\right)^4$ ----- 45= _____

20Y-46. $\frac{(7080 + 7290)^{1/2}}{(5630 - 1650)^{1/5}}$ ----- 46= _____

20Y-47. When driving on the highway I noticed a sign that stated "Austin 22 miles – 18 minutes". What speed should I maintain to reach Austin in the 18 minutes? ----- 47= _____ mph

20Y-48. A 30-ft wire is attached 8" from the top of a pole and the other end is attached 20 ft from the base of the pole. How tall is the pole? - 48= _____ ft



20Y-51. $\left[\frac{\sqrt{\sqrt{15.1 - 10.5}}}{-(0.147 - 0.115)} \right]^3 [17000 + 27200]$ ----- 51= _____

20Y-52. $\frac{\sqrt{1.37 + \pi + 1.44}}{(2820 - 20200 + 12100)^2}$ ----- 52= _____

20Y-53. $\left[\frac{7900 - 5200 + \sqrt{3.70 \times 10^7 / 13.2}}{-104 + 112} \right]^{-2}$ ----- 53= _____

20Y-54. $\sqrt{\frac{(7510)(1.34 \times 10^5)}{(4880)(2.39 \times 10^5)}} - 0.371 + 0.346$ ----- 54= _____

20Y-55. $(1.01)^2 \sqrt{(165)/(1.52)} - (4.03 + 6.03)$ ----- 55= _____

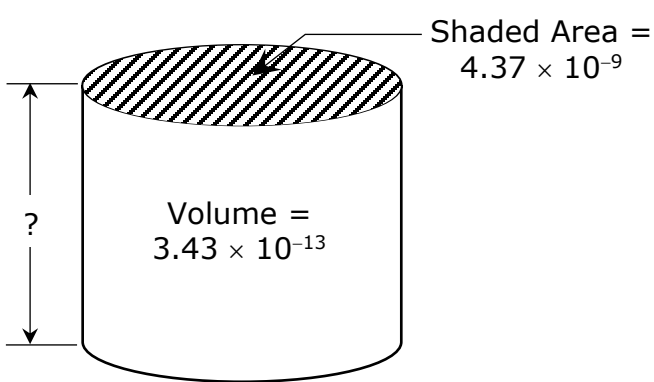
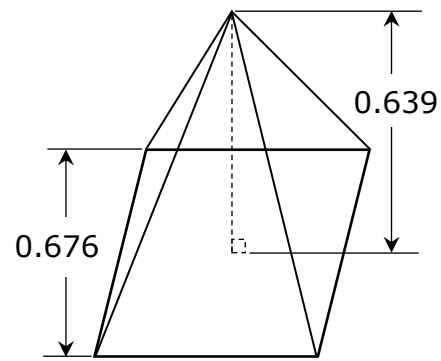
20Y-56. $\sqrt{\frac{1/(59.6 - 11.9)}{(68.5)(9.89 + 40.8)^6}}$ ----- 56= _____

20Y-57. $\sqrt{\frac{1/(3210 - 413)}{(13.8)(3160 + 982)^{-4}}}$ ----- 57= _____

20Y-58. $(\text{deg}) \tan(76.6^\circ) + (68.6/97.2)$ ----- 58= _____

20Y-59. In basic electrical circuits, if two or more resistors are connected in parallel to a power source, the total amount of resistance for the resistors is calculated by taking the reciprocal of the sums of the reciprocal of each of their resistance. So, if a 25-ohm (Ω) resistor is connected in parallel to a 45-ohm resistor, what is the total resistance for the two resistors? ----- 59= _____ Ω

20Y-60. Matt and Mike are driving identical cars in the same direction. Matt is driving at a speed of 63 miles per hour (mph) and is one car-length behind, while Mike is driving at a speed of 61 mph. How long would it take Matt to completely pass Mike's car so that the back of Matt's vehicle is three car-lengths in front of Mike's car? Note that the length of each of the cars is 18 feet. ----- 60= _____ sec

<p>20Y-61. SOLID RIGHT CYLINDER</p>  <p>20Y-61= _____</p>	<p>20Y-62. SQUARE PYRAMID</p>  <p>20Y-62= _____</p>
---	--

20Y-63. $\frac{21! + 23!}{22!}$ ----- 63= _____

20Y-64. (deg) $\frac{\cos(4.2^\circ)}{155}$ ----- 64= _____

20Y-65. $(6.45 \times 10^7 - 3.77 \times 10^7)^{-5} (6.01 \times 10^5)$ ----- 65= _____

20Y-66. (rad) $\frac{\cos(362)}{1210/1270}$ ----- 66= _____

20Y-67. (rad) $\tan\left[\frac{(15.3)(\pi)}{(540)(20.6)}\right]$ ----- 67= _____

20Y-68. (deg) $\frac{\sin(36.9^\circ)}{2.99 + 3.01}$ ----- 68= _____

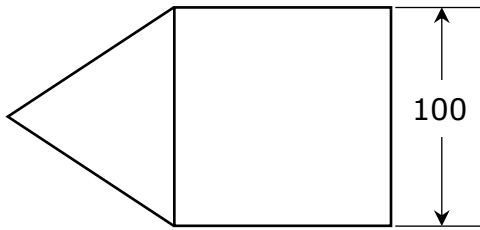
20Y-69. (rad) $(6.68)\sin(380)$ ----- 69= _____

20Y-70. $(2030 - 1470)^{0.412} - 0.195$ ----- 70= _____

20Y-71. How many ounces of water would a hose with an inner diameter of three-fourths inch and length one hundred feet hold if the hose is completely filled? (Note: 231 cubic inches = 1 gallon.) ----- 71= _____ oz

20Y-72. If a positive number, less its reciprocal, is equal to five, what is that positive number? ----- 72= _____

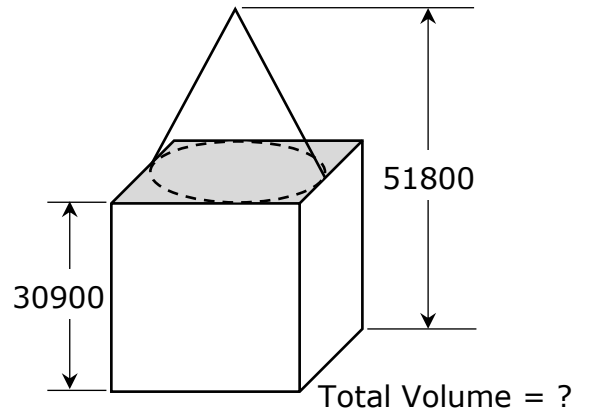
20Y-73.
EQUILATERAL TRIANGLE AND SQUARE



$$\frac{\text{Triangle Area}}{\text{Square Area}} = ?$$

20Y-73= _____

20Y-74.
RIGHT CIRCULAR CONE AND SOLID CUBE



20Y-74= _____

20Y-75. $\text{Ln}\left[\frac{362 + 173 + 393}{127 + 95.4 - 63.7}\right]$ ----- 75= _____

20Y-76. $\frac{\text{Log}(1.01 \times 10^9 + 7.63 \times 10^8)}{1.34}$ ----- 76= _____

20Y-77. $\frac{11.9 - 1.8}{\text{Log}(31300 + 56700)}$ ----- 77= _____

20Y-78. $(0.911)^\pi (1.18)^5 (1.02 - 0.75)^4$ ----- 78= _____

20Y-79. $1 + 3 + 5 + \dots + 739$ ----- 79= _____

20Y-80. $-\frac{1}{(6)} + \frac{1}{3(6)^3} - \frac{1}{5(6)^5} + \frac{1}{7(6)^7}$ ----- 80= _____

2020 University Interscholastic League MS/JH Calculator Contest B Answer Key

20Y-1 = 748 = 7.48×10^2	20Y-14 = -1.05×10^8	20Y-27 = -2.30×10^8
20Y-2 = 8.00 = 8.00×10^0	20Y-15 = 214 = 2.14×10^2	20Y-28 = 1.12×10^{-10}
20Y-3 = 127 = 1.27×10^2	20Y-16 = 0.176 = 1.76×10^{-1}	20Y-29 = 3.32×10^{-6}
20Y-4 = 3.14 = 3.14×10^0	20Y-17 = 0.909 = 9.09×10^{-1}	20Y-30 = 0.873 = 8.73×10^{-1}
20Y-5 = -879 = -8.79×10^2	20Y-18 = 13.7 = 1.37×10^1	20Y-31 = 0.0237 = 2.37×10^{-2}
20Y-6 = 3.40 = 3.40×10^0	20Y-19 = 739 = 7.39×10^2	20Y-32 = 2.47×10^{12}
20Y-7 = 19.1 = 1.91×10^1	20Y-20 = -6.34×10^{-11}	20Y-33 = 0.000473 = 4.73×10^{-4}
20Y-8 = -1.37 = -1.37×10^0	20Y-21 = 0.0273 = 2.73×10^{-2}	20Y-34 = 0.723 = 7.23×10^{-1}
20Y-9 = 1.45×10^6	20Y-22 = 4830 = 4.83×10^3	20Y-35 = 5.25 = 5.25×10^0
20Y-10 = 1.01×10^{12}	20Y-23 = -2.61 = -2.61×10^0	20Y-36 = 125 Integer Answer
20Y-11 = 0.351 = 3.51×10^{-1}	20Y-24 = 80.2 = 8.02×10^1	20Y-37 = 1.25×10^{18}
20Y-12 = 52.5 = 5.25×10^1	20Y-25 = 1.97 = 1.97×10^0	20Y-38 = 0.000122 = 1.22×10^{-4}
20Y-13 = 151 = 1.51×10^2	20Y-26 = 14.94 Dollar Answer	

2020 University Interscholastic League MS/JH Calculator Contest B Answer Key

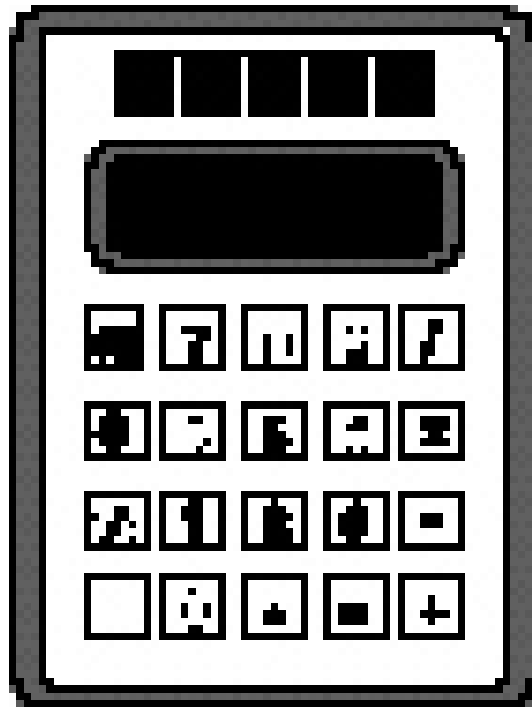
20Y-39	= 9.57×10^8	20Y-51	= -4.24×10^9	20Y-61	= 0.0000785	20Y-73	= 0.433
20Y-40	= 2.37×10^{15}	20Y-52	= 8.75×10^{-8}	20Y-62	= 0.0973	20Y-74	= 3.47×10^{13}
20Y-41	= 1.84	20Y-53	= 3.34×10^{-6}	20Y-63	= 23.0	20Y-75	= 1.77
20Y-42	= 9.47	20Y-54	= 0.904	20Y-64	= 0.00643	20Y-76	= 6.90
20Y-43	= 0.141	20Y-55	= 0.568	20Y-65	= 4.35×10^{-32}	20Y-77	= 2.04
20Y-44	= 0.521	20Y-56	= 1.34×10^{-7}	20Y-66	= -0.791	20Y-78	= 0.00907
20Y-45	= 0.0414	20Y-57	= 87300	20Y-67	= 0.00432	20Y-79	= 137000
20Y-46	= 22.8	20Y-58	= 4.90	20Y-68	= 0.100	20Y-80	= -0.165
20Y-47	= 73.3	20Y-59	= 16.1	20Y-69	= 0.884		
20Y-48	= 23.0	20Y-60	= 30.7	20Y-70	= 3.95		
20Y-49	= 1.06			20Y-71	= 294		
20Y-50	= 67.7			20Y-72	= 5.19		
	= 6.77×10^{-1}				= 5.19×10^0		

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Calculator Applications

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

How to Write the Answers

A. For all problems except stated problems as noted below—write three significant digits.

1. Examples (* means correct but not recommended)

Correct: 12.3, 123, 123.*, 1.23x10*, 1.23x10^{0*}
1.23x10¹, 1.23x10⁰¹, .0190, 0.0190, 1.90x10⁻²

Incorrect: 12.30, 123.0, 1.23(10)², 1.23·10², 1.230x10²,
1.23*10², 0.19, 1.9x10⁻², 19.0x10⁻³, 1.90E-02,

answers written in parentheses(), brackets[] or braces{} are incorrect

2. Plus or minus one digit error in the third significant digit is permitted.

B. For stated problems

1. Except for integer and dollar sign problems, answers to stated problems should be written with three significant digits.

2. Integer problems are indicated by (integer) in the answer blank. Integer problems answers must be exact, no plus or minus one digit, no decimal point or scientific notation.

3. Dollar sign (\$) problems should be answered to the exact cent, but plus or minus one cent error is permitted. Answers must be in fixed notation. The decimal point and cents are required for exact-dollar answers.

2020 University Interscholastic League MS/JH Calculator Contest C

20Z-1. $8200 - 946$ ----- 1= _____

20Z-2. $25 + 22 - 30$ ----- 2= _____

20Z-3. $91 + 126 - 125$ ----- 3= _____

20Z-4. $47 - 28 + 11 - \pi$ ----- 4= _____

20Z-5. $6190 + 5110 - 4050 - 1020$ ----- 5= _____

20Z-6. $-160 + 39 - 175 - 93.1 + 32.9$ ----- 6= _____

20Z-7. $(-1.19 - 0.653) + (1.92 - 1.4 - 1.26)$ ----- 7= _____

20Z-8. $-2.88 + 1.9 - 3.31 + 0.759 + 1.32$ ----- 8= _____

20Z-9. $71.7 \times 140 \times 111$ ----- 9= _____

20Z-10. $148 \times 100 \times 5240 \times 153$ ----- 10= _____

20Z-11. What is the quotient of two-pi divided by 24.8?----- 11= _____

20Z-12. The floor of a gazebo was shaped in the form of a regular hexagon. If each of the sides measured 10' 8", what is the perimeter of the gazebo? ----- 12= _____ ft

20Z-13. In 2008, NASCAR driver, Kyle Busch, drove his race car 300 miles in 1 hour, 58 minutes and 39 seconds. What was his average speed, in miles per hour (mph), for this race? ----- 13= _____ mph

20Z-14. $(448)[51 \times 466 \times 145]$ ----- 14= _____

20Z-15. $(-387)[327 \times 401/71]$ ----- 15= _____

20Z-16. $(111 + 93)[27 - 65 - 122]$ ----- 16= _____

20Z-17. $\left[\frac{761}{589}\right] [(201/615) + 0.202]$ ----- 17= _____

20Z-18. $\frac{[0.734/(0.548)]/64.6}{(0.368 \times 1.65)(0.0118)}$ ----- 18= _____

20Z-19. $\left[\frac{(6550/5840) - (2120/1280)}{0.00226/(0.0055)}\right]$ ----- 19= _____

20Z-20. $\frac{38}{(98 - 101)} - \frac{(71 - 123)}{151}$ ----- 20= _____

20Z-21. $(0.0321)[391/220 \times 576/723] - 0.0134$ ----- 21= _____

20Z-22. $\frac{(0.108 + 0.0498 - 0.0589)}{\{(0.643 - 0.62)/(2530)\}}$ ----- 22= _____

20Z-23. $\left[\frac{805 + 758}{772 - 892}\right] \left[\frac{1490}{1160}\right]$ ----- 23= _____

20Z-24. My pasture is rectangular in shape and measures 200 ft by 1320 feet. The part of the pasture that has grass for harvesting as hay is actually less. If the actual field of grass measures 173 ft by 1200 ft, what percentage of the pasture contains grass? ----- 24= _____ %

20Z-25. Lake Bridgeport has a reservoir storage of 371,491 acre-feet today. One week ago the lake had a reservoir storage of 368,685 acre-feet. What percent increase does this represent? ----- 25= _____ %

20Z-26. Denny decides to build a birdhouse. He uses 8 ft of Cedar board that costs \$8.76 for a 10 ft length; 16" x 12" of plexiglass that costs \$31.98 for a 24" x 48" piece and 2 hinges that cost \$14.98 for a 10-pack of hinges. How much, in materials used, did it cost Denny to build a single birdhouse? ----- 26= \$ _____

20Z-27. $(12.7)[[0.17/(0.297)][0.226/(0.16)]]$ ----- 27= _____

20Z-28. $(12.7)[(0.0151/0.015)(3.92 + 2.2)]$ ----- 28= _____

20Z-29. $\frac{(2.99 \times 10^{12}) + (2.24 \times 10^{12})}{(-0.166)(0.126) - 0.0205}$ ----- 29= _____

20Z-30. $(33.9)[(5.20 \times 10^{11}) - (1.38 \times 10^{11})]$ ----- 30= _____

20Z-31. $\frac{1}{-23.6} + \frac{1}{(\pi)(13.1 - 32.5)}$ ----- 31= _____

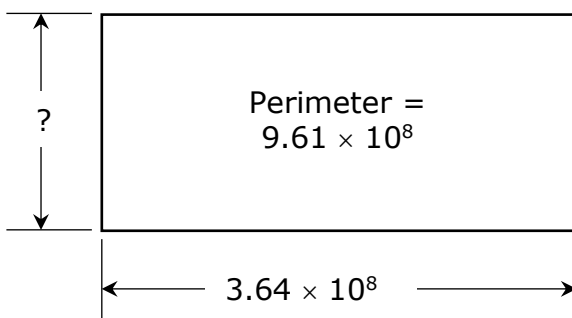
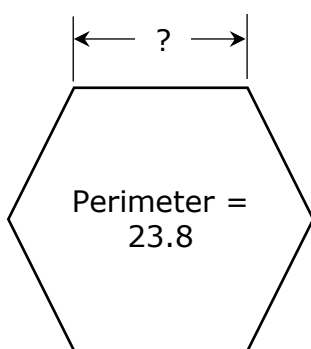
20Z-32. $[0.00428]\left[\frac{1/859}{1/(471)}\right]$ ----- 32= _____

20Z-33. $\left[\frac{1/575}{1/2060}\right][1.01 \times 10^6]$ ----- 33= _____

20Z-34. $\frac{1}{530} - \frac{1}{2760} + \frac{1}{1940}$ ----- 34= _____

20Z-35. Dan walked north at a constant speed of 5 miles per hour a distance of 660 ft and then headed west for 750 ft. If Dan then walked back to his starting point, what was his total time walking? ----- 35= _____ min

20Z-36. A quarter dollar coin measures 24.26 millimeters in diameter. How many of these coins could be laid, touching each other, along a wall that measured 15 feet in length? (Note: 2.54 cm = 1 in.) ----- 36= _____ integer

<p>20Z-37.</p> <p style="text-align: center;">RECTANGLE</p> <div style="text-align: center;">  <p style="margin-left: 100px;">Perimeter = 9.61×10^8</p> <p style="margin-left: 100px;">3.64×10^8</p> </div> <p>20Z-37= _____</p>	<p>20Z-38.</p> <p style="text-align: center;">REGULAR HEXAGON</p> <div style="text-align: center;">  <p style="margin-left: 100px;">Perimeter = 23.8</p> </div> <p>20Z-38= _____</p>
---	---

20Z-39. $\left[\frac{0.768}{473}\right](42 + 41.2)^3$ ----- 39= _____

20Z-40. $\sqrt{\frac{1970 + 1620}{246 - 207}}$ ----- 40= _____

20Z-41. $(1.59 + 1.19 + 1.83)^2(860 + 1110)^2$ ----- 41= _____

20Z-42. $\sqrt{5760 - 4370 + 6440} - \sqrt{1710}$ ----- 42= _____

20Z-43. $\sqrt{(266/280) + 0.592 - 0.239}$ ----- 43= _____

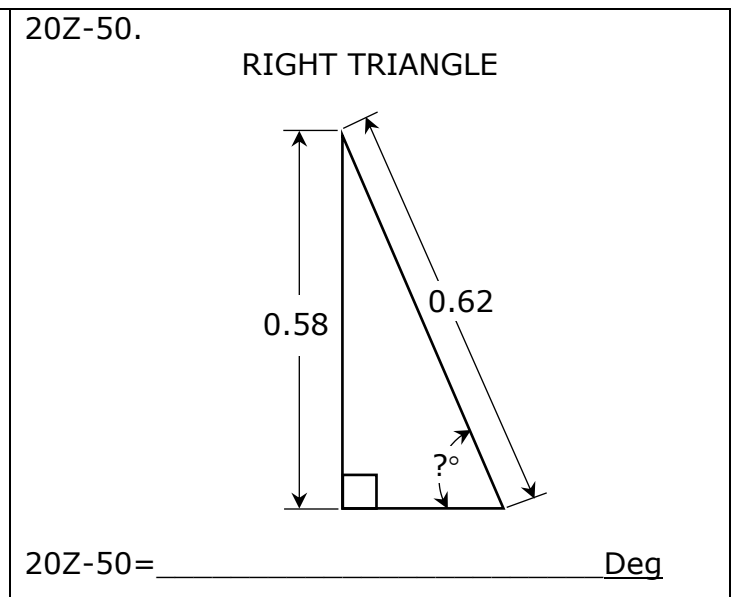
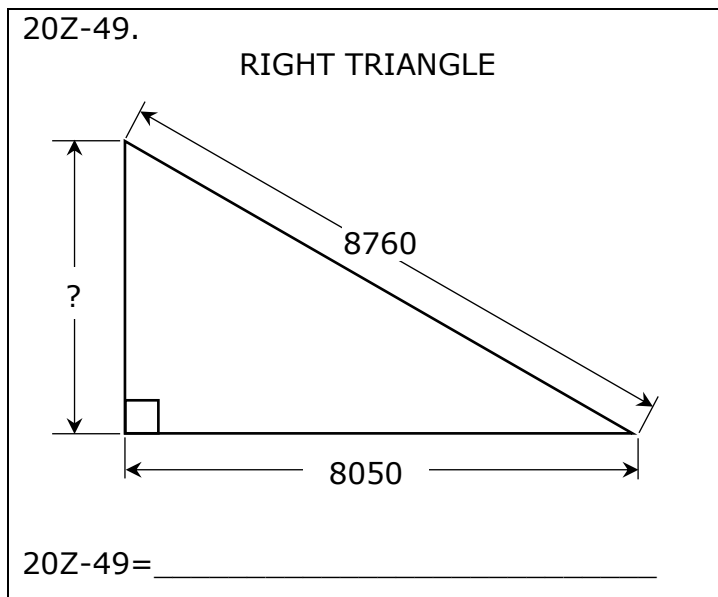
20Z-44. $(1/(0.0184))(20700 - 11400)^2$ ----- 44= _____

20Z-45. $\sqrt[4]{2.87 - 116/91.6} + 1/\sqrt{0.0474 + 0.12}$ ----- 45= _____

20Z-46. $\frac{(5.72 + 8.54)^{1/3}}{(5100 - 5060)^{1/5}}$ ----- 46= _____

20Z-47. When driving on the highway I noticed a sign that stated "San Marcos 21 miles – 18 minutes". What speed should I maintain to reach San Marcos in the 18 minutes?----- 47= _____ mph

20Z-48. A 36-ft wire is attached 8" from the top of a pole and the other end is attached 20 ft from the base of the pole. How tall is the pole? - 48= _____ ft



20Z-51. $\left[\frac{1680 - 836 + \sqrt{2.71 \times 10^6 / 8.69}}{-895 + 2750} \right]^{-2}$ ----- 51= _____

20Z-52. $\sqrt{\frac{8.17 \times 10^{-4}}{(70.2)(5290)} + \frac{(0.0048 - 0.0096)}{(18.5 + 41.2)}}$ ----- 52= _____

20Z-53. $\left[\frac{\sqrt{\sqrt{0.0228 - 0.00531}}}{-(5.11 - 2.99)} \right]^3 [3.96 + 8.83]$ ----- 53= _____

20Z-54. $(4.53)^2 \sqrt{(1.48)/(8.98)} - (8.18 + 0.964)$ ----- 54= _____

20Z-55. $\sqrt{\frac{(5660)(35000)}{(2.01 \times 10^5)(14600)}} - 0.2 + 0.123$ ----- 55= _____

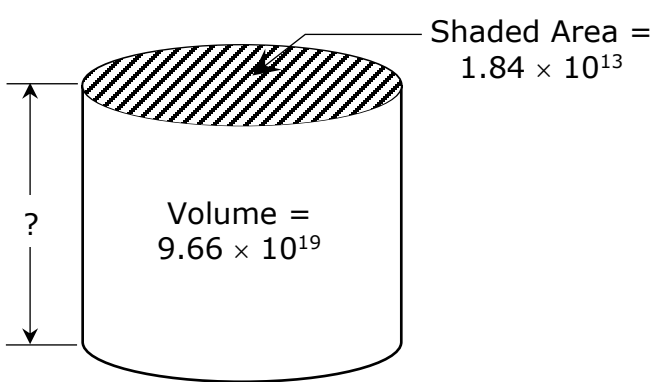
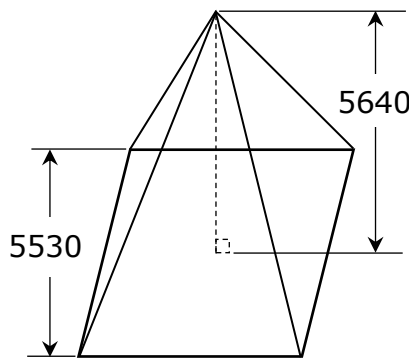
20Z-56. $\sqrt{\frac{1/(250 - 208)}{(4)(80.2 + 81)^3}}$ ----- 56= _____

20Z-57. $\sqrt{\frac{1/(2390 - 2020)}{(48)(205 + 179)^2}}$ ----- 57= _____

20Z-58. $\sqrt{\frac{(2.15)(983)}{(11.4) + (19.7)}} + 1/(0.656)^5$ ----- 58= _____

20Z-59. In basic electrical circuits, if two or more resistors are connected in parallel to a power source, the total amount of resistance for the resistors is calculated by taking the reciprocal of the sums of the reciprocal of each of their resistance. So, if a 125-ohm (Ω) resistor is connected in parallel to a 175-ohm resistor, what is the total resistance for the two resistors? ----- 59= _____ Ω

20Y-60. Matt and Mike are driving identical cars in the same direction. Matt is driving at a speed of 65 miles per hour (mph) and is one car-length behind, while Mike is driving at a speed of 62 mph. How long would it take Matt to completely pass Mike's car so that the back of Matt's vehicle is three car-lengths in front of Mike's car? Note that the length of each of the cars is 18 feet. ----- 60= _____ sec

<p>20Z-61. SOLID RIGHT CYLINDER</p>  <p>20Z-61= _____</p>	<p>20Z-62. SQUARE PYRAMID</p>  <p>20Z-62= _____</p>
---	--

20Z-63. $\frac{17!/9!}{18! + 19!}$ ----- 63= _____

20Z-64. $(178 - \pi)e^{0.683}$ ----- 64= _____

20Z-65. $(\text{deg}) \frac{\tan(454^\circ)}{490}$ ----- 65= _____

20Z-66. $(\text{deg}) (177 - 398)\cos(36.8^\circ) + 56.8$ ----- 66= _____

20Z-67. $(\text{rad}) \frac{\sin(4.38)}{156/2150}$ ----- 67= _____

20Z-68. $(\text{rad}) \cos[(2.49 - 0.902)(4.49)]$ ----- 68= _____

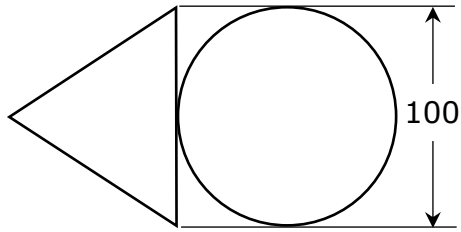
20Z-69. $(\text{rad}) (1220)\sin(271)$ ----- 69= _____

20Z-70. $(330 - 69.4)^{0.0244 - 0.0461}$ ----- 70= _____

20Z-71. How many ounces of water would a hose with an inner diameter of five-eighths inch and length one hundred feet hold if the hose is completely filled? (Note: 231 cubic inches = 1 gallon.) ----- 71= _____ oz

20Z-72. If a positive number, less its reciprocal, is equal to four, what is that positive number? ----- 72= _____

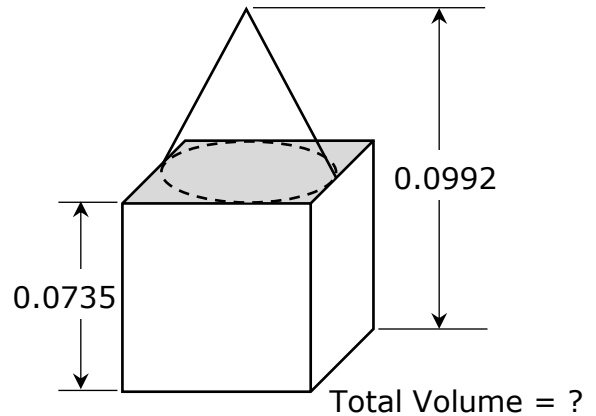
20Z-73.
EQUILATERAL TRIANGLE AND CIRCLE



$$\frac{\text{Triangle Area}}{\text{Circle Area}} = ?$$

20Z-73= _____

20Z-74.
RIGHT CIRCULAR CONE AND SOLID CUBE



20Z-74= _____

20Z-75. $\frac{\text{Log}(6.13 + 8.32)}{\pi - 6.23}$ ----- 75= _____

20Z-76. $\frac{(53.4)^{0.9}(27)^{0.629}}{(1.74 - 0.203)^{-5}}$ ----- 76= _____

20Z-77. $\frac{57500 - 34100}{\text{Log}(4260 + 4430)}$ ----- 77= _____

20Z-78. $\text{Ln}\left[\frac{284 + 215 + 80.6}{1300 - 487 - 503}\right]$ ----- 78= _____

20Z-79. $1 + 2 + 3 + \dots + 757$ ----- 79= _____

20Z-80. $(0.94) - \frac{(0.94)^2}{2} + \frac{(0.94)^3}{3} - \frac{(0.94)^4}{4}$ ----- 80= _____

2020 University Interscholastic League MS/JH Calculator Contest C Answer Key

$$\begin{aligned} 20Z-1 &= 7250 \\ &= 7.25 \times 10^3 \end{aligned}$$

$$\begin{aligned} 20Z-2 &= 17.0 \\ &= 1.70 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-3 &= 92.0 \\ &= 9.20 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-4 &= 26.9 \\ &= 2.69 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-5 &= 6230 \\ &= 6.23 \times 10^3 \end{aligned}$$

$$\begin{aligned} 20Z-6 &= -356 \\ &= -3.56 \times 10^2 \end{aligned}$$

$$\begin{aligned} 20Z-7 &= -2.58 \\ &= -2.58 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20Z-8 &= -2.21 \\ &= -2.21 \times 10^0 \end{aligned}$$

$$20Z-9 = 1.11 \times 10^6$$

$$20Z-10 = 1.19 \times 10^{10}$$

$$\begin{aligned} 20Z-11 &= 0.253 \\ &= 2.53 \times 10^{-1} \end{aligned}$$

$$\begin{aligned} 20Z-12 &= 64.0 \\ &= 6.40 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-13 &= 152 \\ &= 1.52 \times 10^2 \end{aligned}$$

$$20Z-14 = 1.54 \times 10^9$$

$$\begin{aligned} 20Z-15 &= -715000 \\ &= -7.15 \times 10^5 \end{aligned}$$

$$\begin{aligned} 20Z-16 &= -32600 \\ &= -3.26 \times 10^4 \end{aligned}$$

$$\begin{aligned} 20Z-17 &= 0.683 \\ &= 6.83 \times 10^{-1} \end{aligned}$$

$$\begin{aligned} 20Z-18 &= 2.89 \\ &= 2.89 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20Z-19 &= -1.30 \\ &= -1.30 \times 10^0 \end{aligned}$$

$$\begin{aligned} 20Z-20 &= -12.3 \\ &= -1.23 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-21 &= 0.0321 \\ &= 3.21 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 20Z-22 &= 10900 \\ &= 1.09 \times 10^4 \end{aligned}$$

$$\begin{aligned} 20Z-23 &= -16.7 \\ &= -1.67 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-24 &= 78.6 \\ &= 7.86 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-25 &= 0.761 \\ &= 7.61 \times 10^{-1} \end{aligned}$$

$$20Z-26 = 15.33$$

Dollar Answer

$$\begin{aligned} 20Z-27 &= 10.3 \\ &= 1.03 \times 10^1 \end{aligned}$$

$$\begin{aligned} 20Z-28 &= 78.2 \\ &= 7.82 \times 10^1 \end{aligned}$$

$$20Z-29 = -1.26 \times 10^{14}$$

$$20Z-30 = 1.29 \times 10^{13}$$

$$\begin{aligned} 20Z-31 &= -0.0588 \\ &= -5.88 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 20Z-32 &= 0.00235 \\ &= 2.35 \times 10^{-3} \end{aligned}$$

$$20Z-33 = 3.62 \times 10^6$$

$$\begin{aligned} 20Z-34 &= 0.00204 \\ &= 2.04 \times 10^{-3} \end{aligned}$$

$$\begin{aligned} 20Z-35 &= 5.48 \\ &= 5.48 \times 10^0 \end{aligned}$$

$$20Z-36 = 188$$

Integer Answer

$$20Z-37 = 1.17 \times 10^8$$

$$\begin{aligned} 20Z-38 &= 3.97 \\ &= 3.97 \times 10^0 \end{aligned}$$

2020 University Interscholastic League MS/JH Calculator Contest C Answer Key

20Z-39	= 935	20Z-51	= 1.75	20Z-61	= 5.25×10^6	20Z-73	= 0.551
	= 9.35×10^2		= 1.75×10^0		= 5.51×10^{-1}		
20Z-40	= 9.59	20Z-52	= -3.35×10^{-5}	20Z-62	= 5.75×10^{10}	20Z-74	= 0.000433
	= 9.59×10^0				= 7.65×10^{-9}		= 4.33×10^{-4}
20Z-41	= 8.25×10^7	20Z-53	= -0.0646	20Z-64	= 346	20Z-75	= -0.376
			= -6.46×10^{-2}		= 3.46×10^2		= -3.76×10^{-1}
20Z-42	= 47.1	20Z-54	= -0.813	20Z-65	= -0.0292	20Z-76	= 2450
	= 4.71×10^1		= -8.13×10^{-1}		= -2.92×10^{-2}		= 2.45×10^3
20Z-43	= 1.14	20Z-55	= 0.183	20Z-66	= -120	20Z-77	= 5940
	= 1.14×10^0		= 1.83×10^{-1}		= -1.20×10^2		= 5.94×10^3
20Z-44	= 4.70×10^9	20Z-56	= 3.77×10^{-5}	20Z-67	= -13.0	20Z-78	= 0.626
					= -1.30×10^1		= 6.26×10^{-1}
20Z-45	= 3.57	20Z-57	= 1.95×10^{-5}	20Z-68	= 0.662		
	= 3.57×10^0				= 6.62×10^{-1}		
20Z-46	= 1.16	20Z-58	= 16.5	20Z-69	= 895	20Z-79	= 287000
	= 1.16×10^0		= 1.65×10^1		= 8.95×10^2		= 2.87×10^5
20Z-47	= 70.0	20Z-59	= 72.9	20Z-70	= 0.886	20Z-80	= 0.580
	= 7.00×10^1		= 7.29×10^1		= 8.86×10^{-1}		= 5.80×10^{-1}
20Z-48	= 30.6	20Z-60	= 20.5	20Z-71	= 204		
	= 3.06×10^1		= 2.05×10^1		= 2.04×10^2		
20Z-49	= 3450			20Z-72	= 4.24		
	= 3.45×10^3				= 4.24×10^0		
20Z-50	= 69.3						
	= 6.93×10^1						

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Test/Tiebreaker (#correct)

____ / ____ Initials ____

____ / ____ Initials ____

Papers contending to place:

____ / ____ Initials ____



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

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

Circle Grade Level: 2 3 4 5 6 7 8

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

1. a b c d

2. a b c d

3. a b c d

4. a b c d

5. a b c d

6. a b c d

7. a b c d

8. a b c d

9. a b c d

10. a b c d

11. a b c d

12. a b c d

13. a b c d

14. a b c d

15. a b c d

16. a b c d

17. a b c d

18. a b c d

19. a b c d

20. a b c d

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

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

1. a b c d

2. a b c d

3. a b c d

4. a b c d

5. a b c d

6. a b c d

7. a b c d

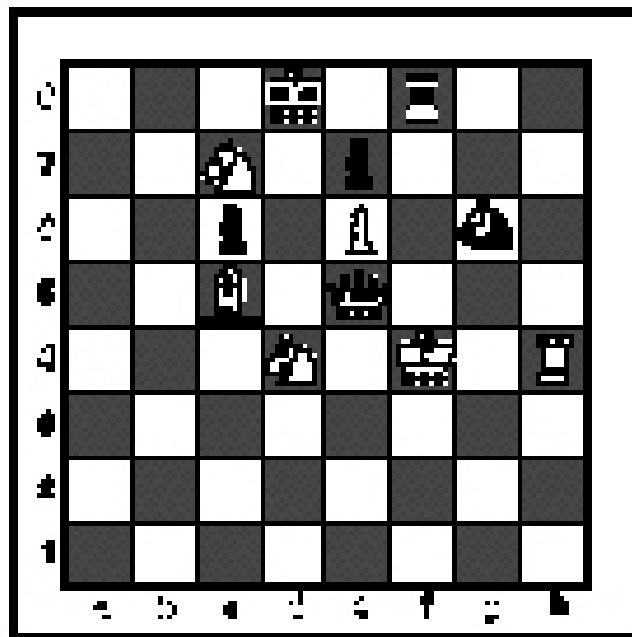
8. a b c d

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 2 & 3

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

How to read and answer questions on this test

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

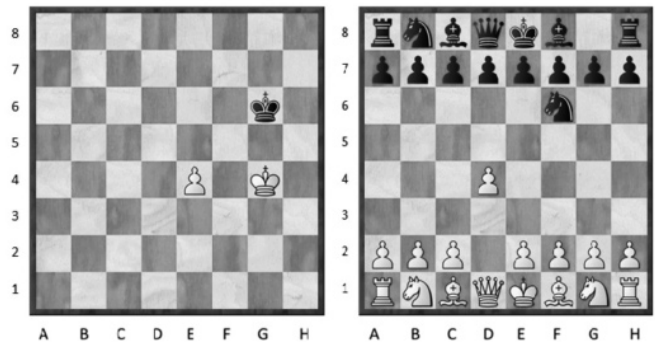


Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	
Queen	
Rook	
Bishop	
Knight	
Pawn	a-h (We write the file it's on.)

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

At right are two sample moves.

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



White has just played **e4**. Black has just played ... **f6**

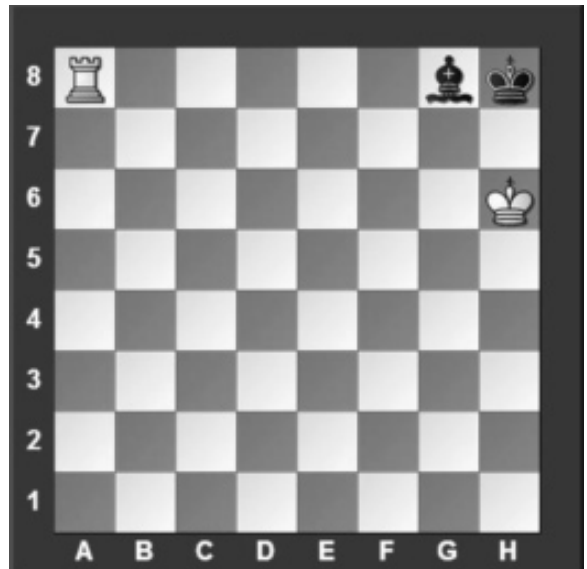
#1. Black to move



What term best describes this situation?

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

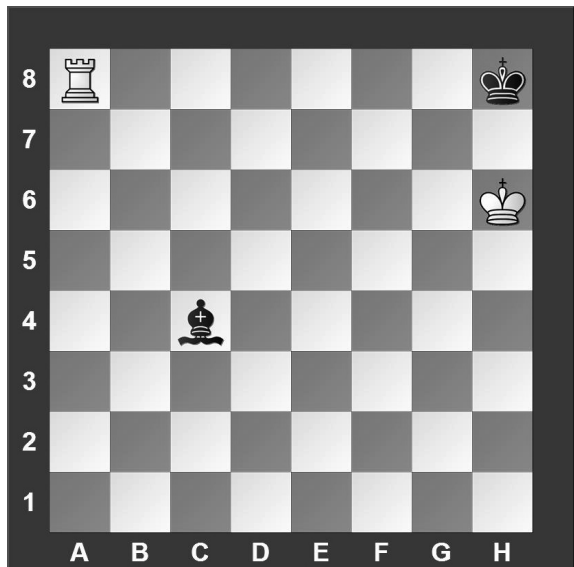
#2. Black to move



What term best describes this situation?

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

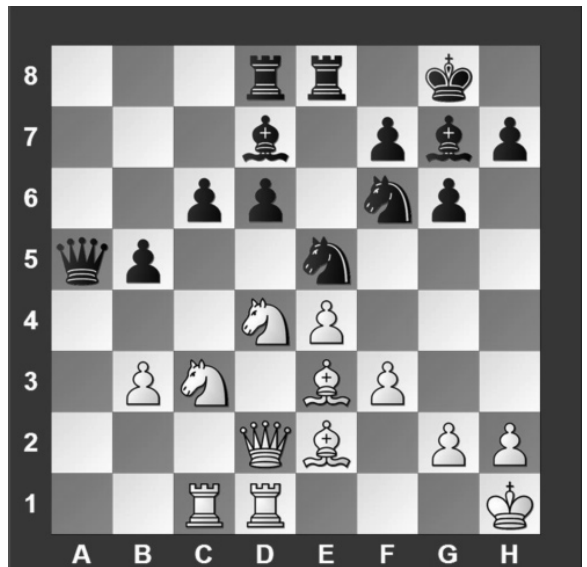
#3. Black to move



What term best describes this situation?

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

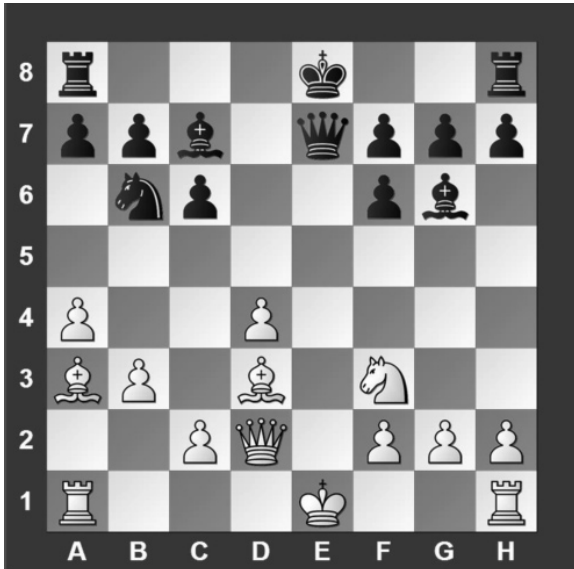
#4.



Which side has material advantage?

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

#5. White to move



Which move is possible for White?

- a) Short Castle.
- b) Long Castle.
- c) To capture Black's Bishop.
- d) To capture Black's Queen.

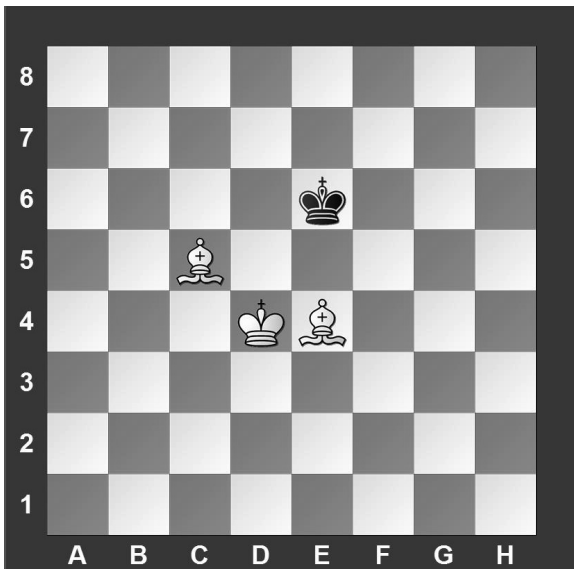
#6. White to move



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

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

#7. 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.

#8. White to move



What piece should White capture?

- a) Black's Queen.
- b) Black's Knight.
- c) Black's Pawn.
- d) Black's Rook.

#9. White to move



What is White's best move?

- a) ♔d5
- b) d3
- c) ♖e1
- d) ♘×e5

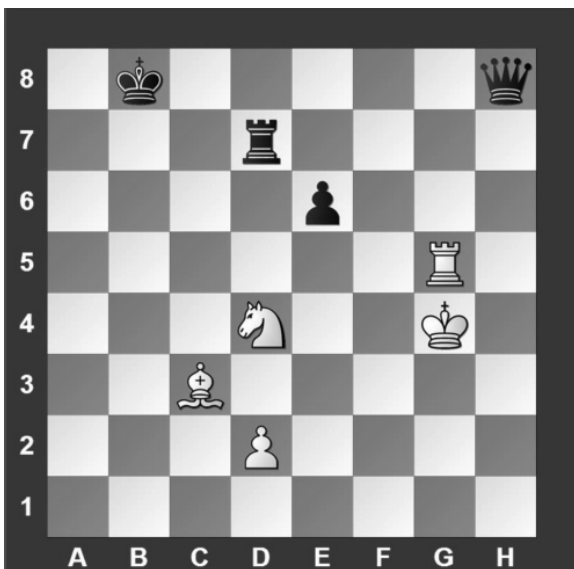
#10. White to move



What piece should White promote to?

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

#11. White to move



What is White's best move?

- a) ♖g8
- b) ♘c6
- c) ♖b5
- d) ♘×e6

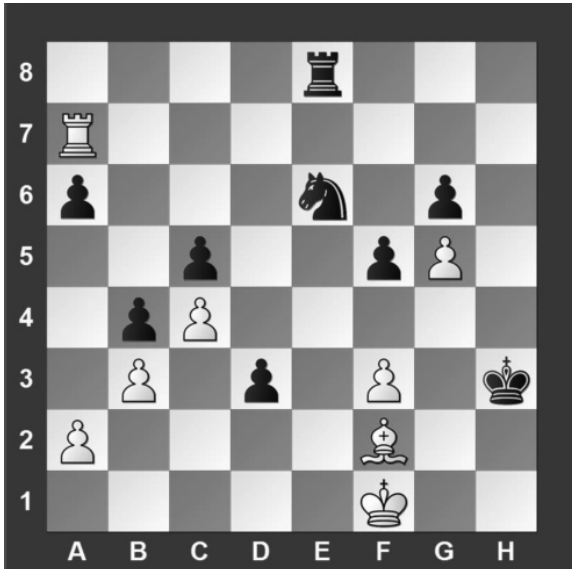
#12. White to move



What is White's best move?

- a) ♔b5
- b) ♖c2
- c) d3
- d) ♖a4

#13. White to move



What is White's best move?

- a) ♖×a6
- b) ♜g1
- c) ♖h7
- d) f4

#14. White to move



What is White's best move?

- a) ♕c7
- b) ♜e3
- c) ♕d4
- d) ♖c6

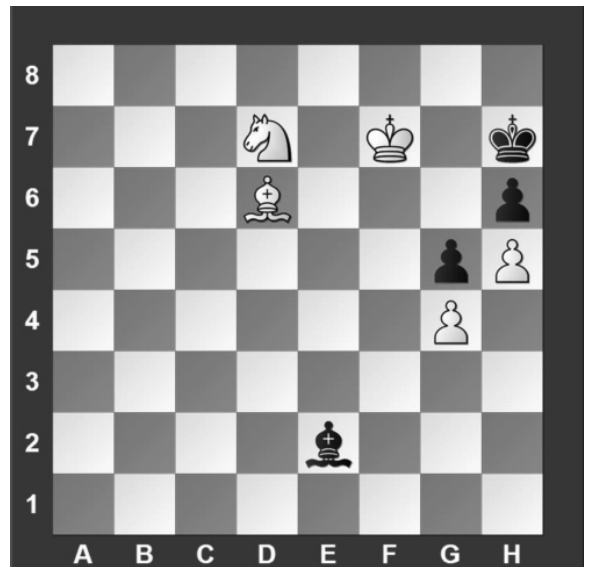
#15. White to move



What is White's best move?

- a) ♘×d6
- b) ♜×d6
- c) c4
- d) ♘c7

#16. White to move



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

- a) ♕c5
- b) ♘f8
- c) ♘f6
- d) ♕f8



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Invitational — Grades 2 & 3**

ANSWER KEY

Test

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

Tiebreaker

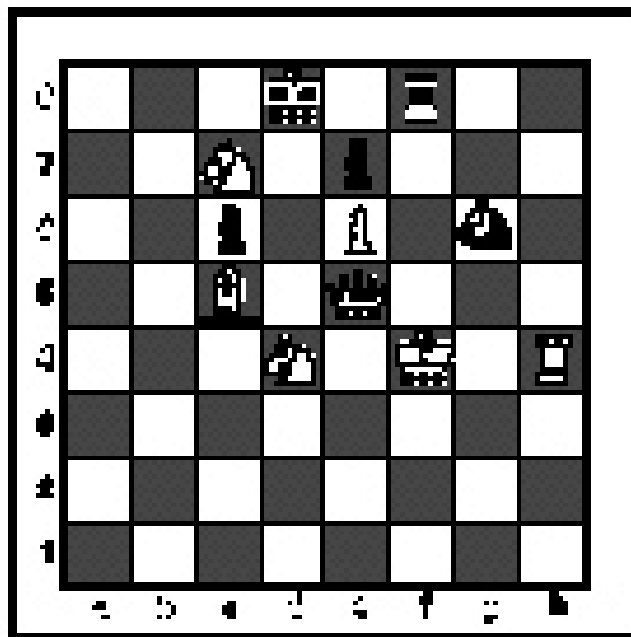
- | | |
|------|------|
| 1. A | 5. A |
| 2. C | 6. B |
| 3. C | 7. D |
| 4. A | 8. C |

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 4 & 5

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

How to read and answer questions on this test

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

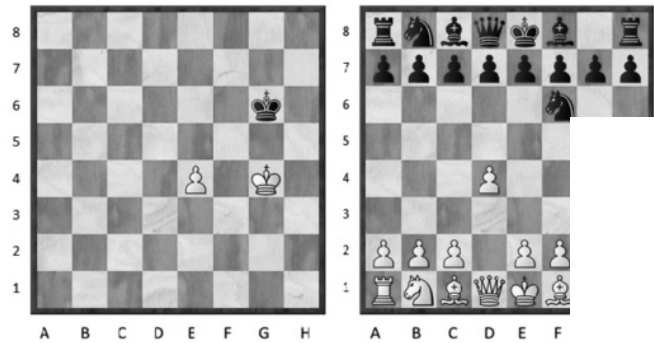


At right are two sample moves.

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.

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.)

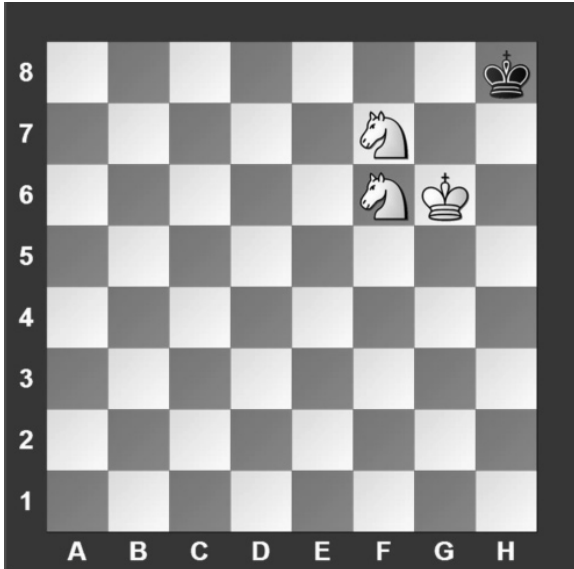
- To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.
- When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.



White has just played **e4**.

Black has just

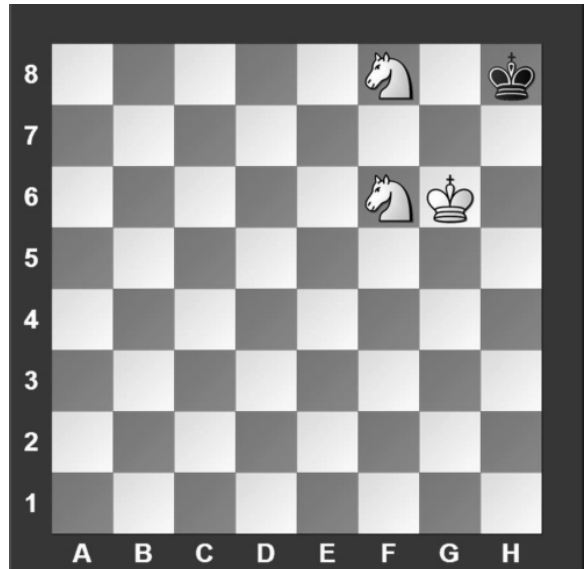
#1. Black to move



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.

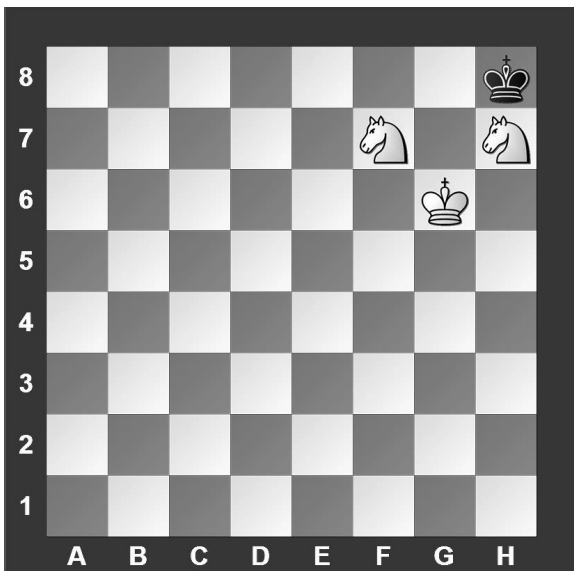
#2. Black to move



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



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

- a) Black's b-pawn
- b) Black's d-pawn
- c) Black's c-pawn
- d) All of the above

#5.



Which side has material advantage?

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

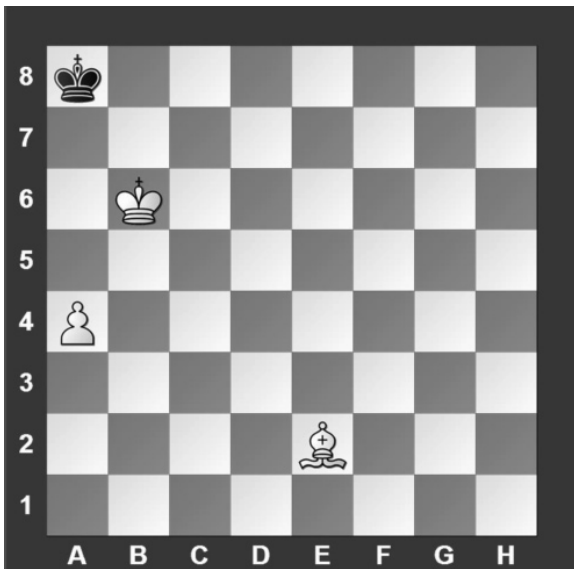
#6. White to move



What piece should White capture?

- a) Black's Rook
- b) Black's Bishop
- c) Black's Pawn
- d) Black's Knight

#7. White to move



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

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

#8. White to move



What is the best move?

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

#9. White to move



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

- a) $f \times g6$
- b) $\text{K}e3$
- c) $\text{K} \times g6$
- d) $\text{N}g5$

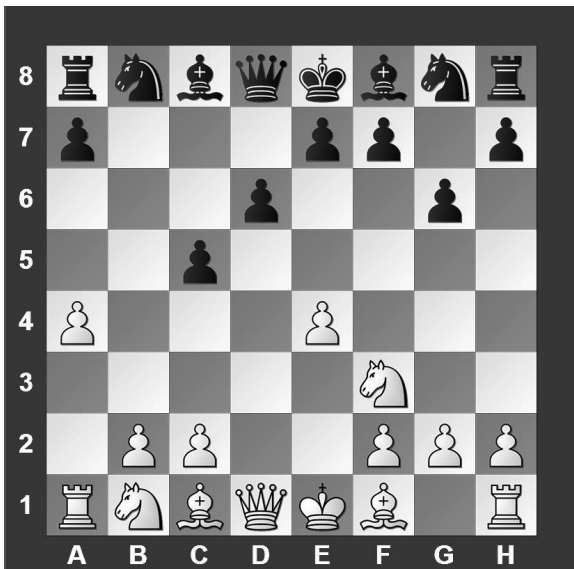
#10. White to move



What is White's best move?

- a) $\text{Q}d5$
- b) $\text{Q} \times f7$
- c) $\text{N}e5$
- d) $h3$

#11. White to move



What is White's best move?

- a) $\text{Q}b5$
- b) $\text{N}c3$
- c) $\text{Q}d5$
- d) $a5$

#12. White to move



What piece should White capture?

- a) Black's Knight
- b) Black's Rook
- c) Black's Bishop
- d) Black's Pawn

#13. White to move



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

- a) ♔g4
- b) ♖h8
- c) ♖x e5
- d) ♔h5

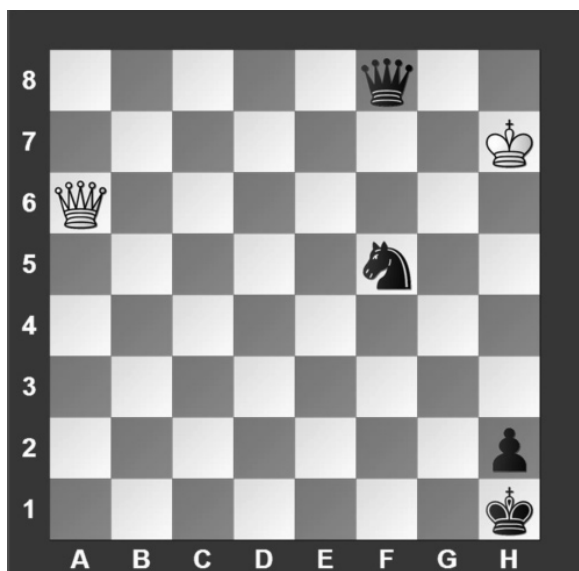
#14. White to move



What is White's best move?

- a) ♔xg4
- b) ♖h6
- c) ♖e5
- d) ♖h6

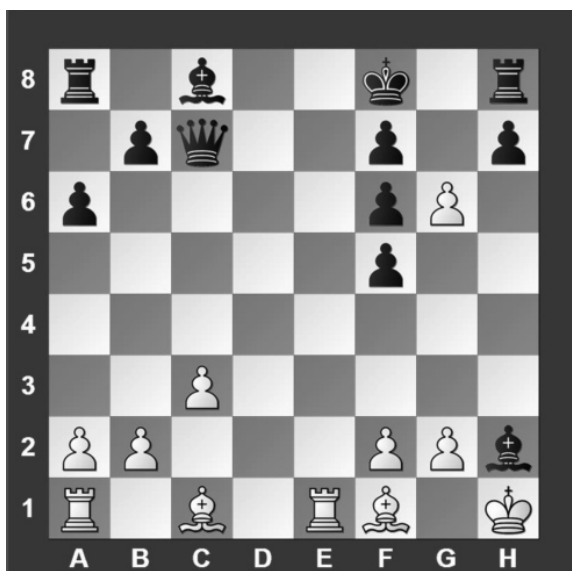
#15. White to move



What is White's best move?

- a) ♔f1
- b) ♔f6
- c) ♔a1
- d) ♔h6

#16. White to move



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

- a) ♖e8
- b) ♖xf7
- c) ♖xh7
- d) ♖g7

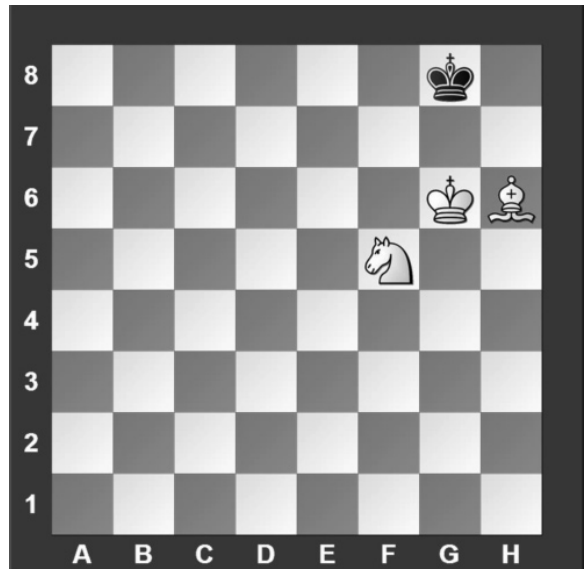
#17. White to move



What is White's best move?

- a) Nf4
- b) Nd5
- c) Nb5
- d) d5

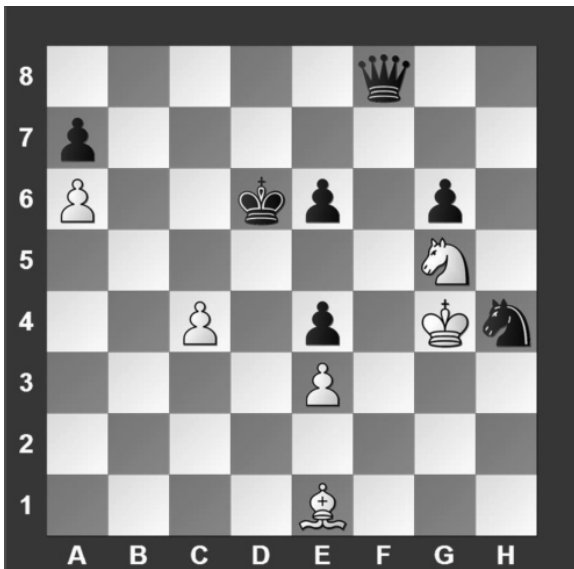
#18. White to move



With the best play, how many moves will it take White to checkmate Black?

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

#19. White to move



What is White's best move?

- a) Nxe4
- b) c5
- c) Qb4
- d) Qg3

#20. White to move



What is White's best move?

- a) Kd8
- b) Ke7
- c) Qxb4
- d) Re1



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Invitational — Grades 4 & 5**

ANSWER KEY

Test

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

Tiebreaker

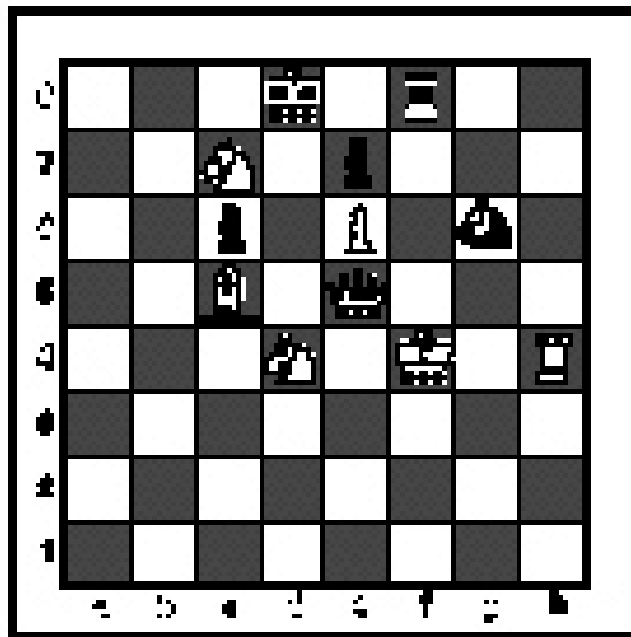
- | | |
|------|------|
| 1. A | 5. A |
| 2. C | 6. B |
| 3. C | 7. D |
| 4. A | 8. C |

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League

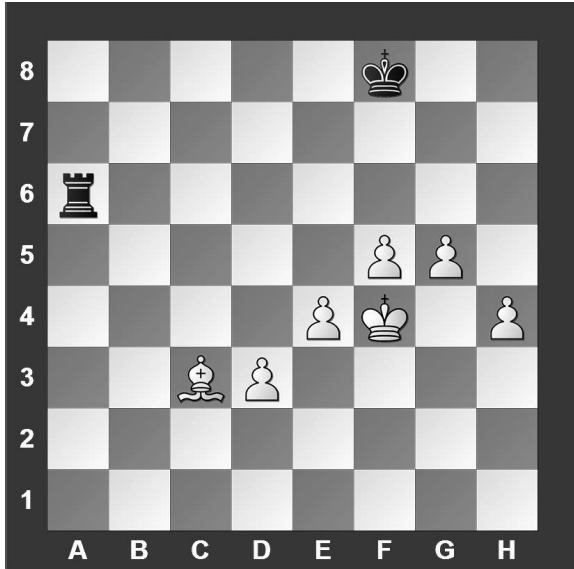


Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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

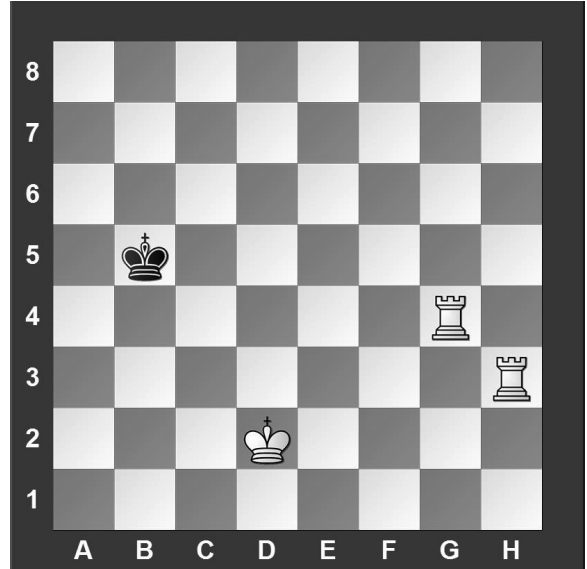
#1. White to move



What should be the outcome of the game?

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

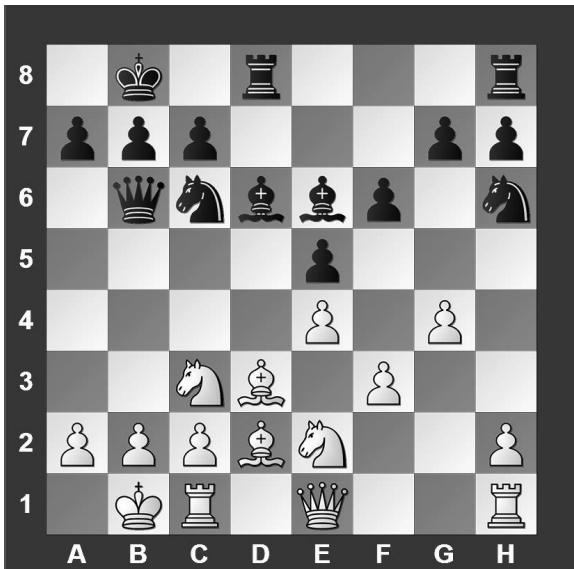
#2. White to move



With the best play, how many moves will it take for White to checkmate Black?

- a) 2
- b) 3
- c) 4
- d) 5

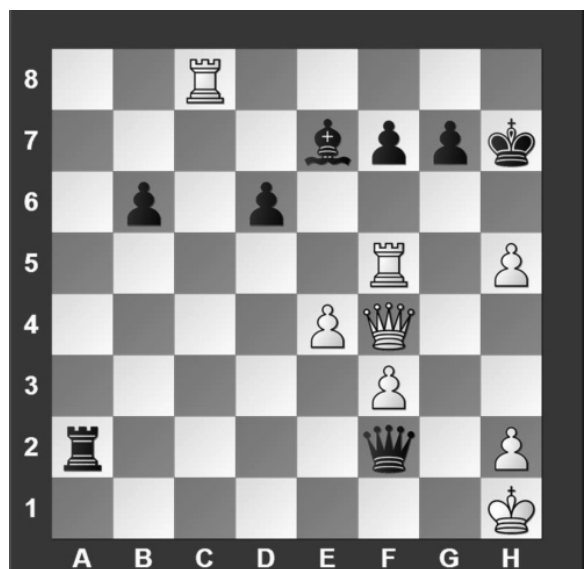
#3. White to move



What is White's best move

- a) Qe3
- b) g5
- c) Na4
- d) Nb5

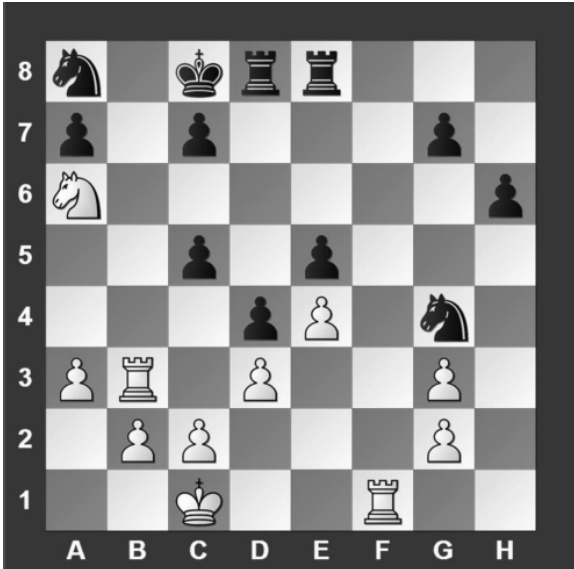
#4. White to move



What is White's best move?

- a) Rh6
- b) Rh8
- c) Rxf7
- d) h6

#5. White to move



What is White's best move?

- a) ♖f7
- b) ♖b8
- c) ♗xc5
- d) ♖f4

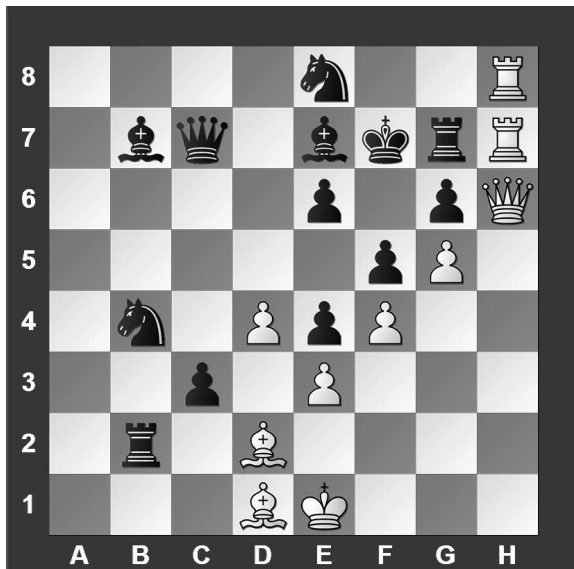
#6. White to move



What is White's best move?

- a) ♖h5
- b) ♖xh7
- c) ♖xg8
- d) ♗xg5

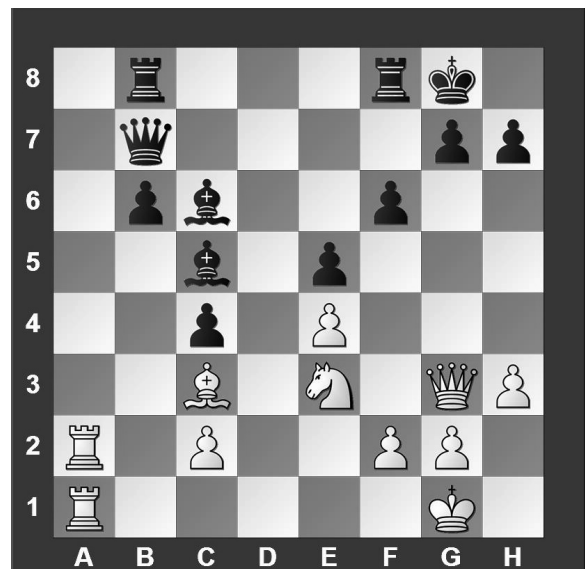
#7. White to move



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

- a) ♖xg7
- b) ♖xg7
- c) ♖xg6
- d) ♗h5

#8. White to move



What is White's best move?

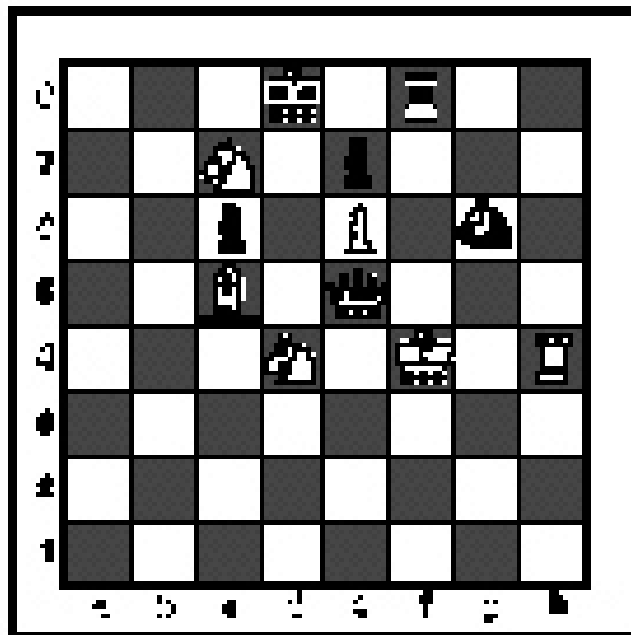
- a) ♗f5
- b) ♖xg7
- c) ♖a7
- d) ♗xe5

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 2 & 3

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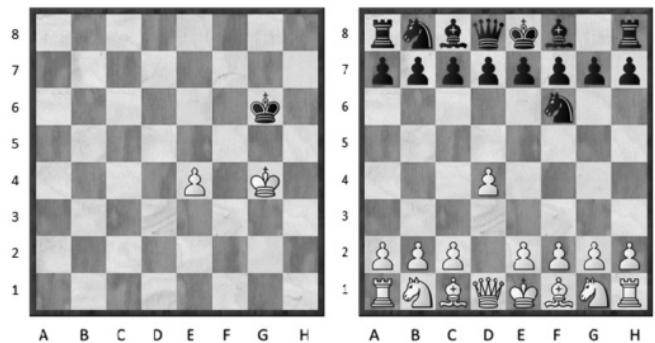


Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	
Queen	
Rook	
Bishop	
Knight	
Pawn	a-h (We write the file it's on.)

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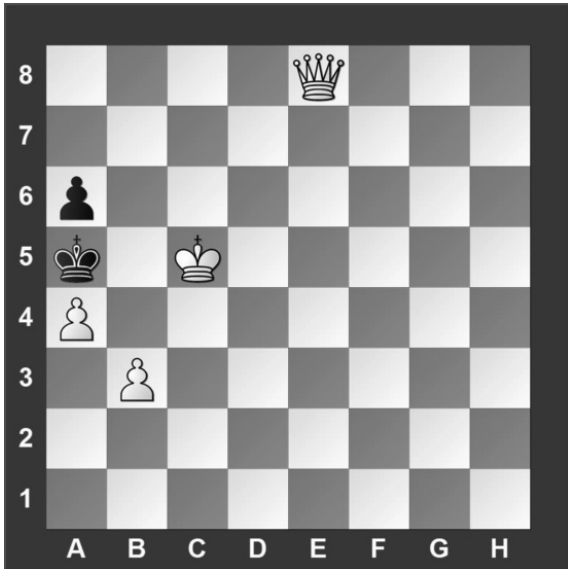
At right are two sample moves.

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 ...  **f6**.

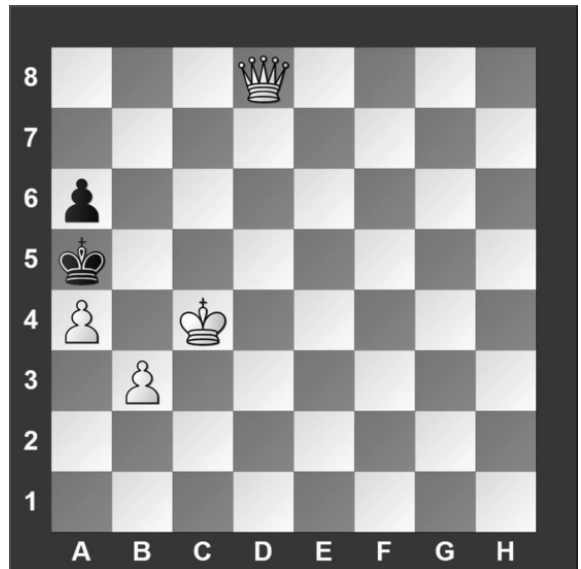
#1. Black to move



What term best describes this situation?

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

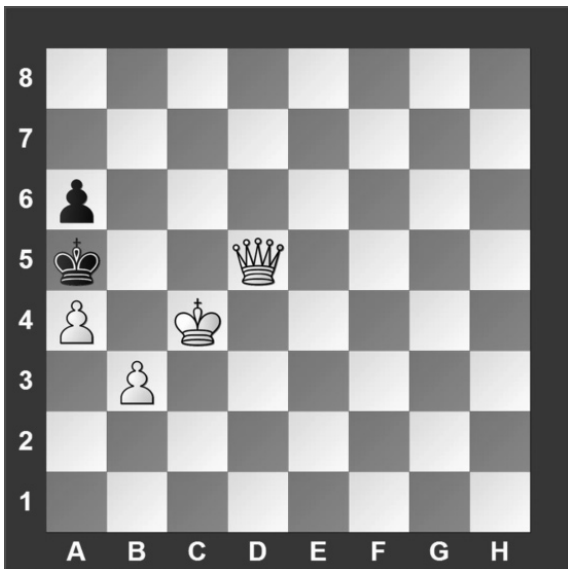
#2. Black to move



What term best describes this situation?

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

#3. Black to move



What term best describes this situation?

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

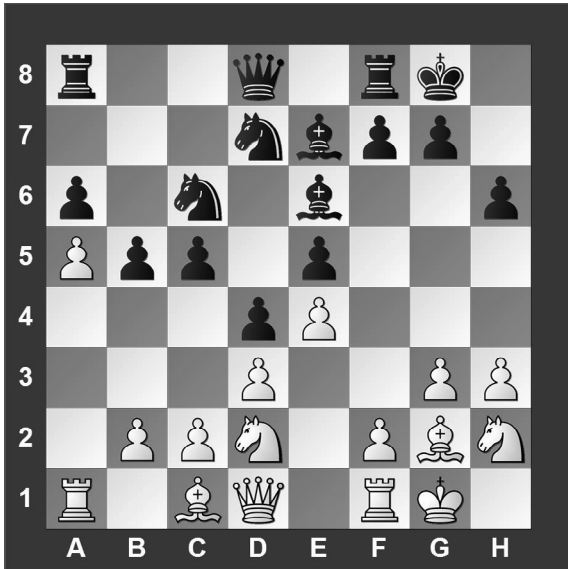
#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even
- d) It's not possible to tell

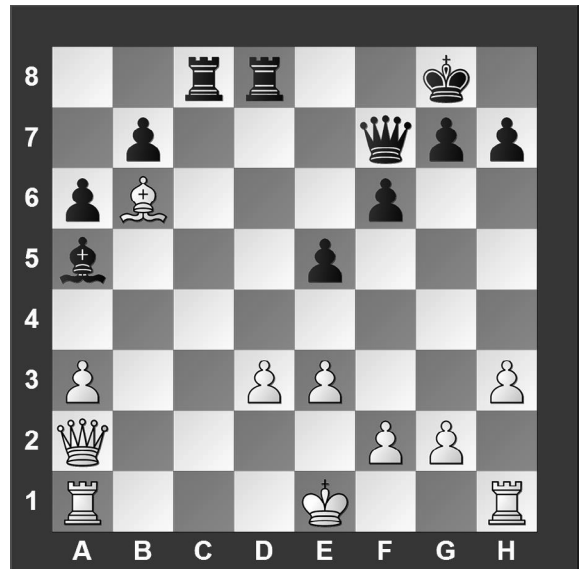
#5. White to move



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

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

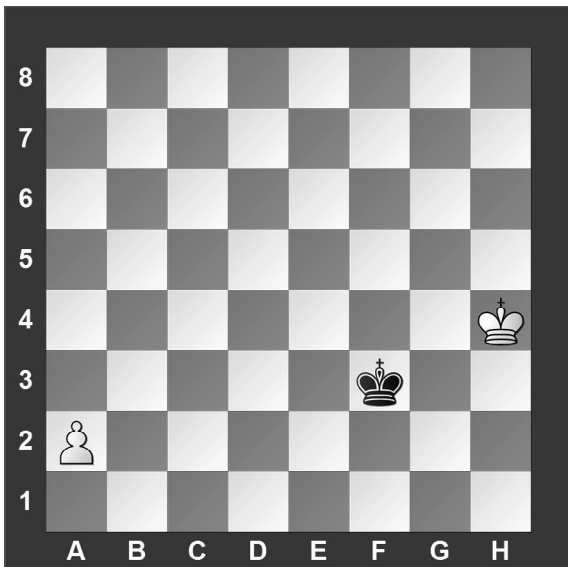
#6. White to move



Which move is possible for White?

- a) Short Castle
- b) Long Castle
- c) Take Black's Bishop
- d) Take Black's Queen

#7. White to move



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

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

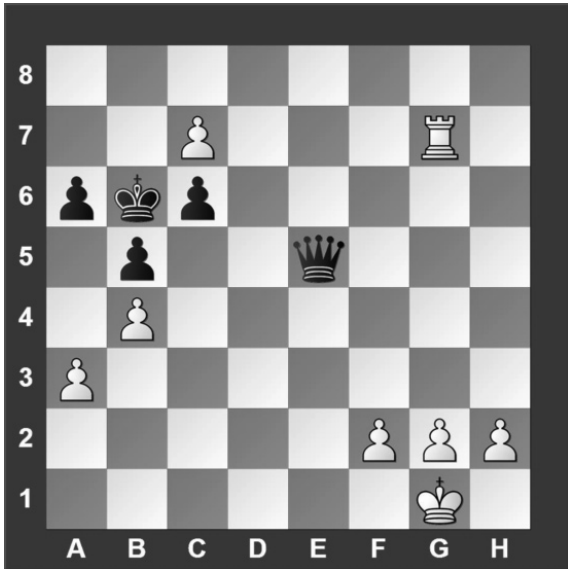
#8. White to move



What is White's best move?

- a) c5
- b) b5
- c) ♖f5
- d) ♖b3

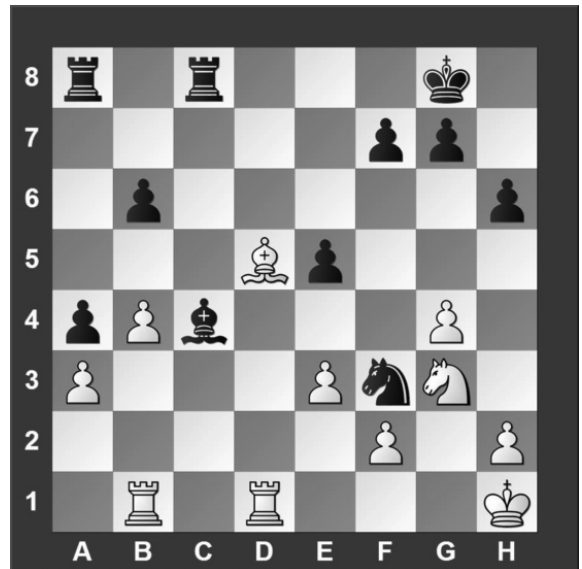
#9. White to move



What piece should White promote to?

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

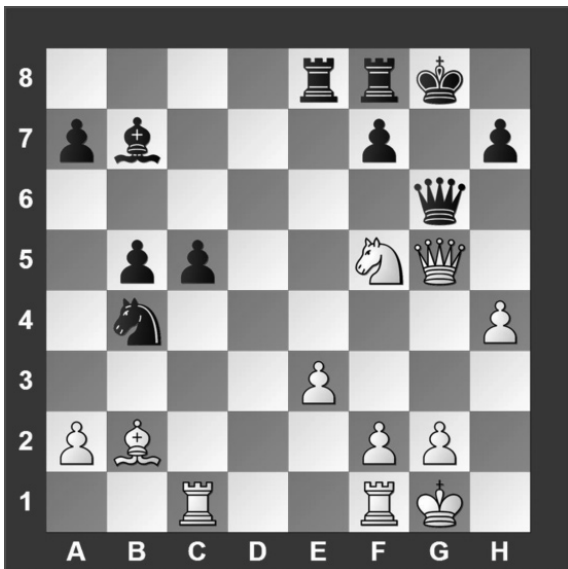
#10. White to move



What piece should White capture?

- a) Black's Bishop
- b) Black's Knight
- c) Black's Rook
- d) Black's Pawn

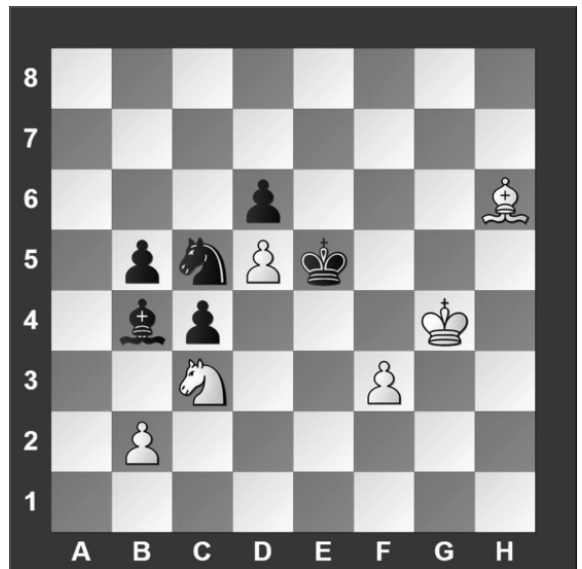
#11. White to move



What is White's best move?

- a) ♖×c5
- b) ♘e7
- c) ♗×g6
- d) ♘h6

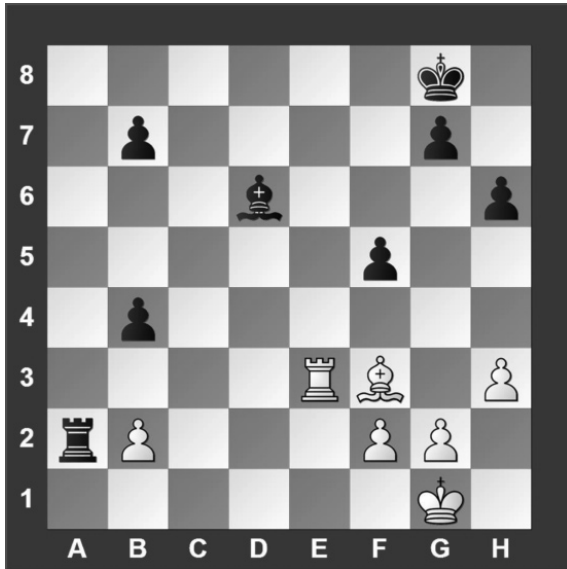
#12. White to move



What is White's best move?

- a) ♘×b5
- b) f4
- c) ♔g7
- d) ♔f4

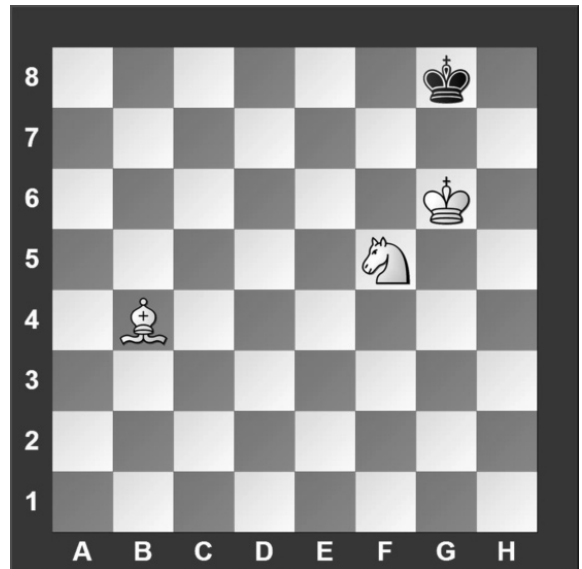
#13. White to move



What is White's best move?

- a) Qd5
- b) Qxb7
- c) Re8
- d) Rd3

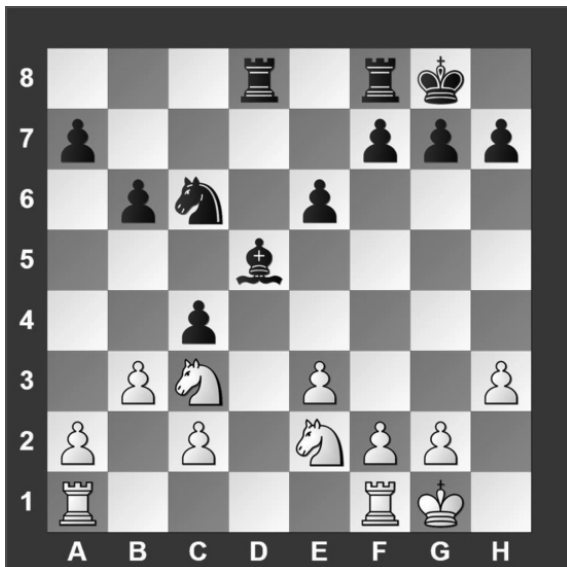
#14. White to move



With the best play, how many moves will it take White to checkmate Black?

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

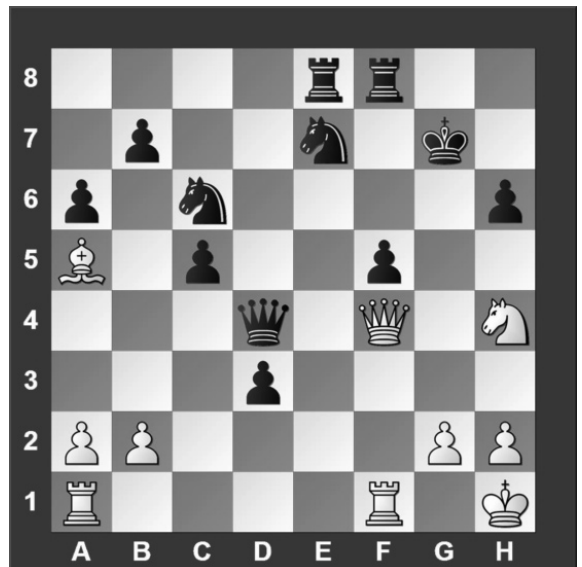
#15. White to move



What is White's best move?

- a) Nxd5
- b) Nf4
- c) bxc4
- d) e4

#16. White to move



What is White's best move?

- a) Qc3
- b) Nxf5
- c) Kg3
- d) Kxd4



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Fall/Winter — Grades 2 & 3**

ANSWER KEY

Test

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

Tiebreaker

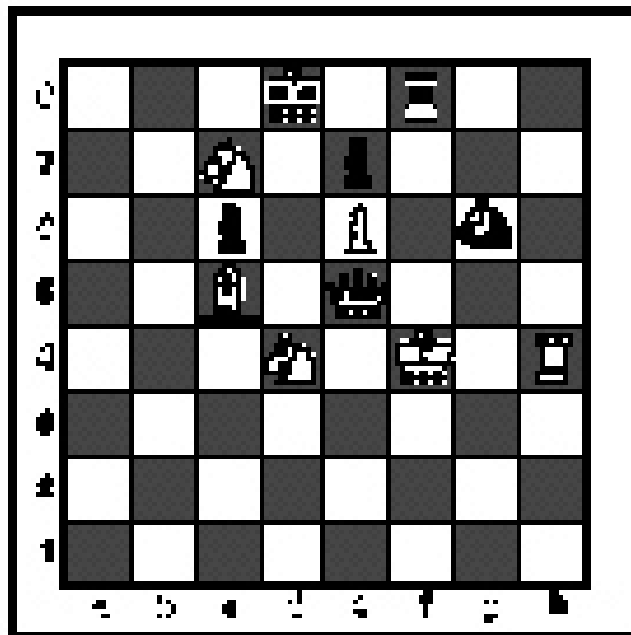
- | | |
|------|------|
| 1. A | 5. B |
| 2. B | 6. C |
| 3. C | 7. A |
| 4. D | 8. C |

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 4 & 5

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

How to read and answer questions on this test

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

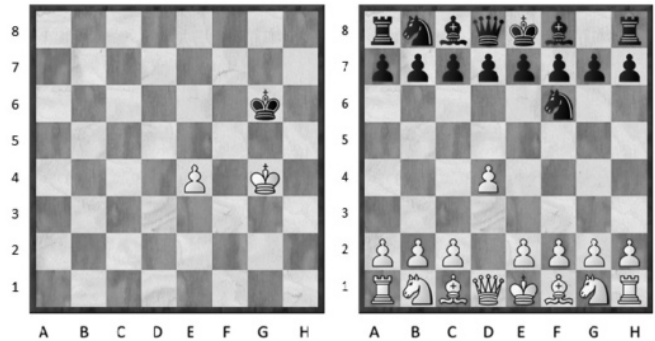


Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	
Queen	
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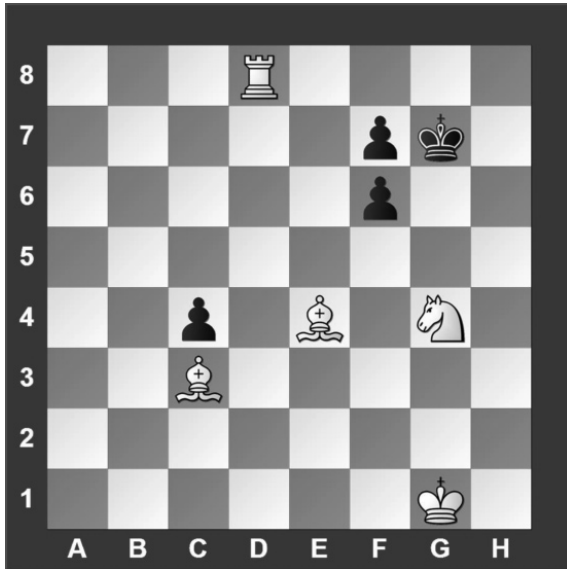
At right are two sample moves.

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 ... **f6**.

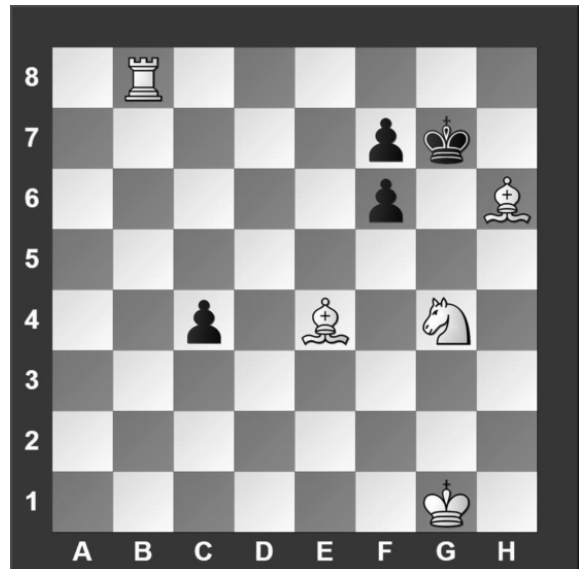
#1. Black to move



What term best describes this situation?

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

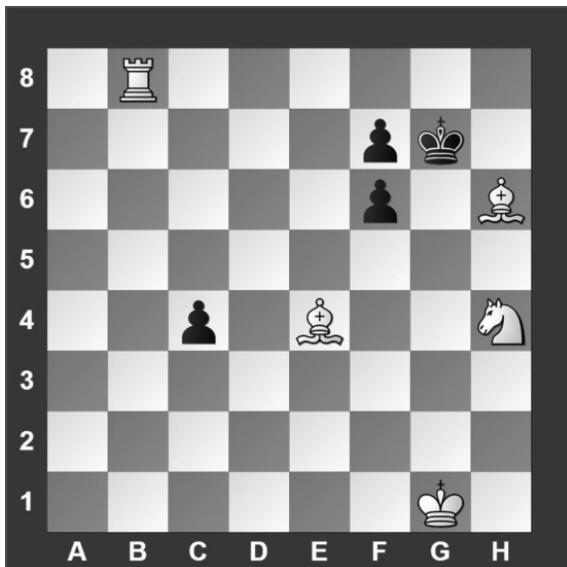
#2. Black to move



What term best describes this situation?

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

#3 Black to move.



What term best describes this situation?

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

#4.



Which side has material advantage?

- a) White
- b) Black
- c) It's even
- d) It's not possible to tell

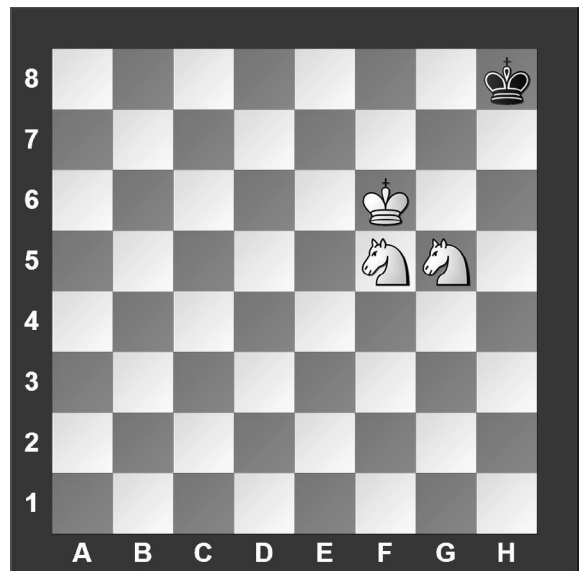
#5. White to move



Which move below is possible for White?

- a) Short Castle
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- c) Take Black's Bishop
- d) Take Black's Knight

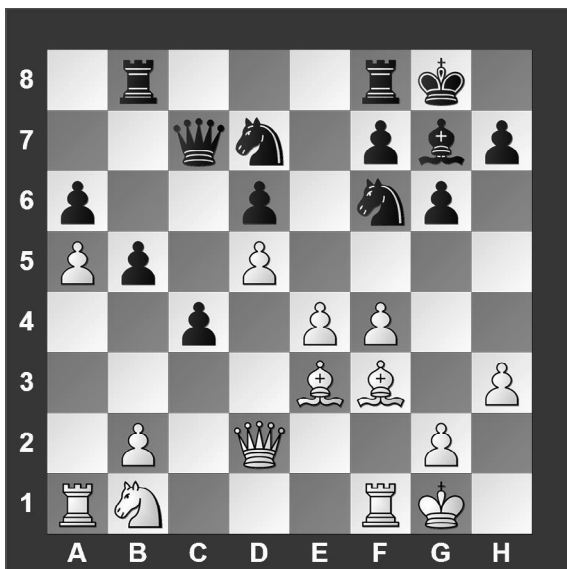
#6. White to move



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

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

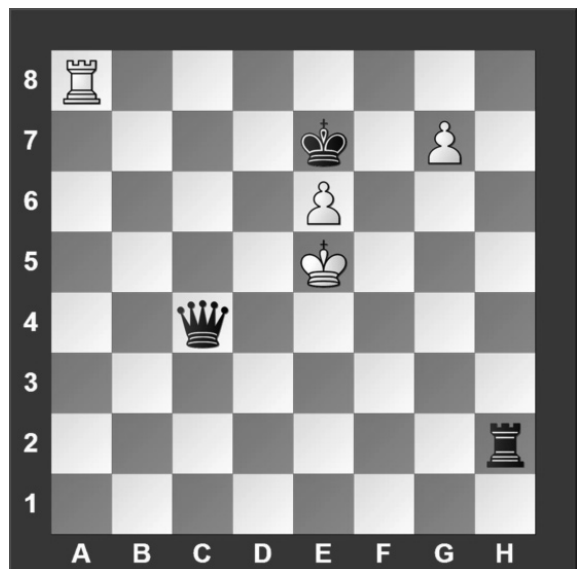
#7. White to move



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

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

#8. White to move



What piece should White promote to?

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

#9. White to move



What is White's best move?

- a) $e \times d6$
- b) $e6$
- c) Qh4
- d) Rf3

#10. White to move



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

- a) Qh5
- b) Qh3
- c) Qf5
- d) Qd3

#11. White to move



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

- a) $\text{Q} \times d2$
- b) $\text{R} \times c5$
- c) $\text{Q} \times b7$
- d) $\text{R} \times h5$

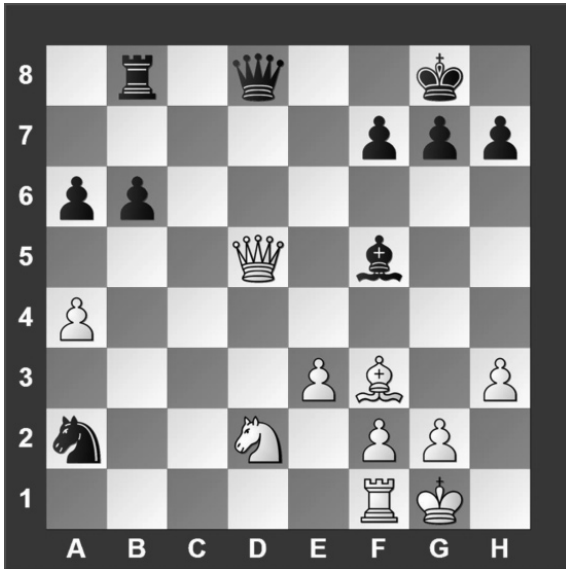
#12. White to move



What is White's best move?

- a) $\text{Q} \times h5$
- b) $\text{Q} \times b5$
- c) $g4$
- d) $\text{Q} \times e4$

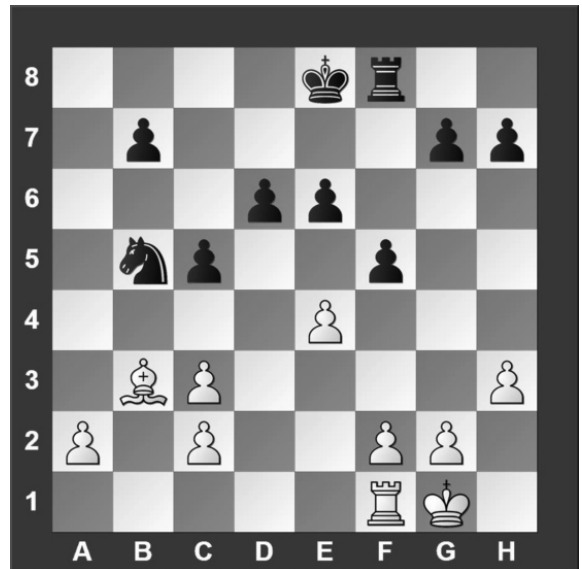
#13. White to move



What piece should White capture?

- a) Black's Queen
- b) Black's Knight
- c) Black's Bishop
- d) Black's Pawn

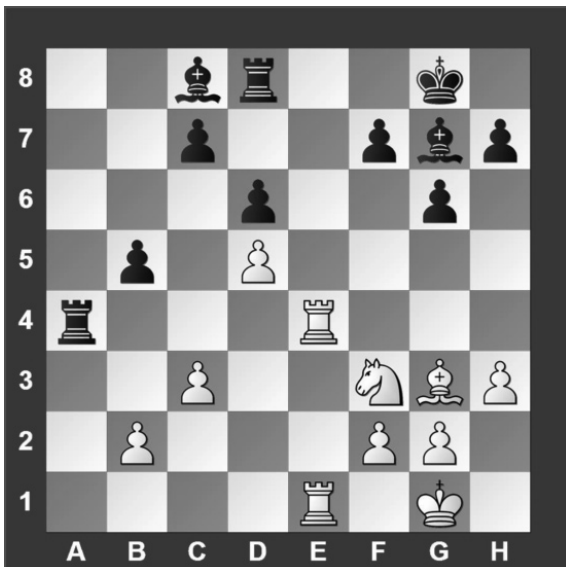
#14. White to move



What is White's best move?

- a) ♔×e6
- b) c4
- c) e×f5
- d) ♔a4

#15. White to move



What is White's best move?

- a) ♖e8
- b) ♔h4
- c) ♖×a4
- d) b3

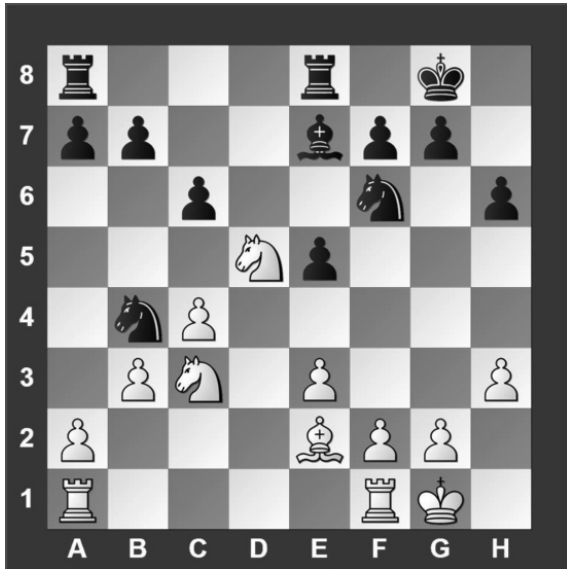
#16. White to move



What is White's best move?

- a) ♖c1
- b) ♖a8
- c) ♔e8
- d) ♔b8

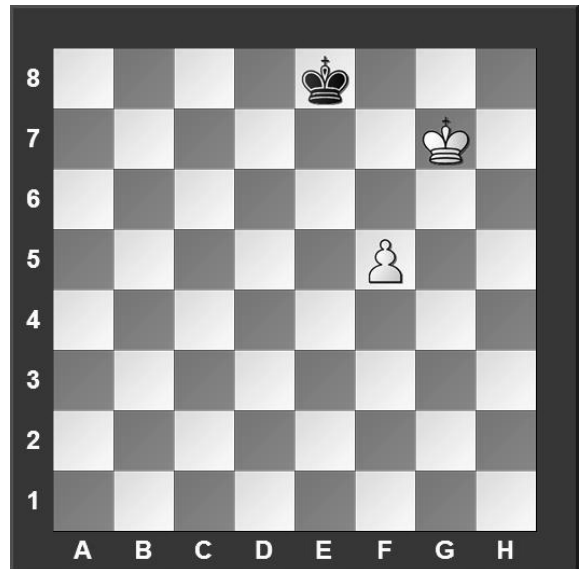
#17. White to move



What is White's best move?

- a) $\text{N} \times \text{b4}$
- b) $\text{N} \times \text{f6}$
- c) $\text{N} \times \text{e7}$
- d) $\text{N} \text{c7}$

#18. White to move



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

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

#19. White to move



What is White's best move?

- a) $\text{K} \times \text{b7}$
- b) $\text{K} \times \text{f5}$
- c) d5
- d) g4

#20. White to move



What is White's best move?

- a) $\text{R} \text{a2}$
- b) $\text{R} \text{b1}$
- c) $\text{N} \text{b5}$
- d) $\text{N} \text{a4}$



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Fall/Winter — Grades 4 & 5**

ANSWER KEY

Test

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

Tiebreaker

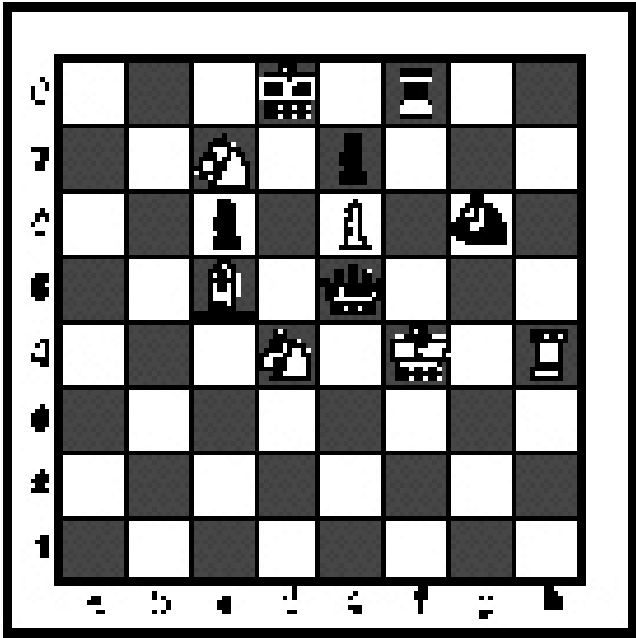
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FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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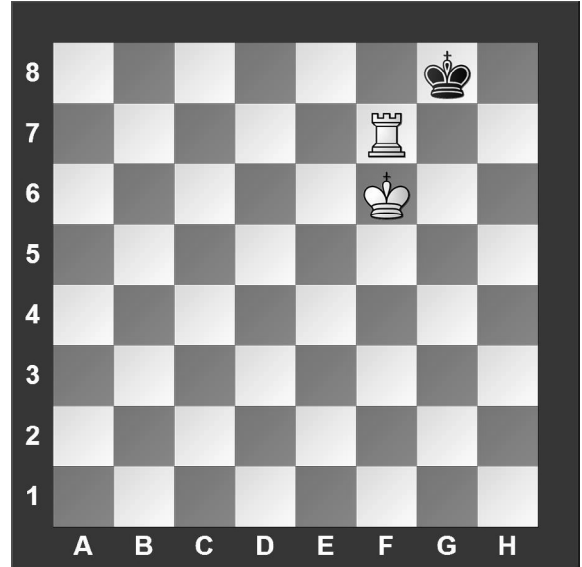
#1. White to move



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

- a) ♔g7
- b) e×d5
- c) ♖g3
- d) ♘×d6

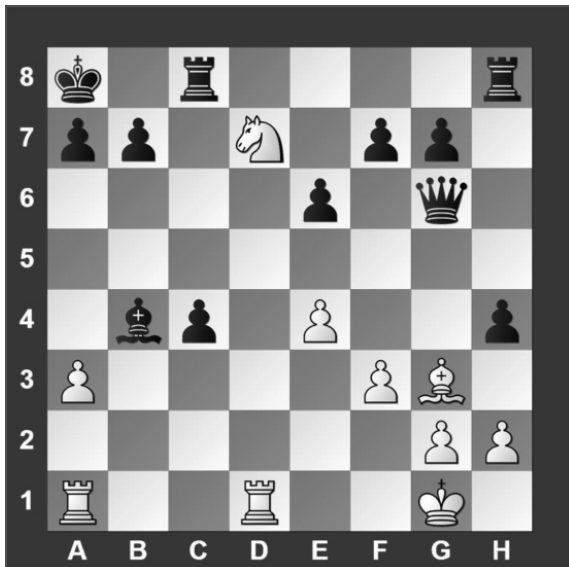
#2. White to move



With the best play, how many moves will it take White to checkmate Black?

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

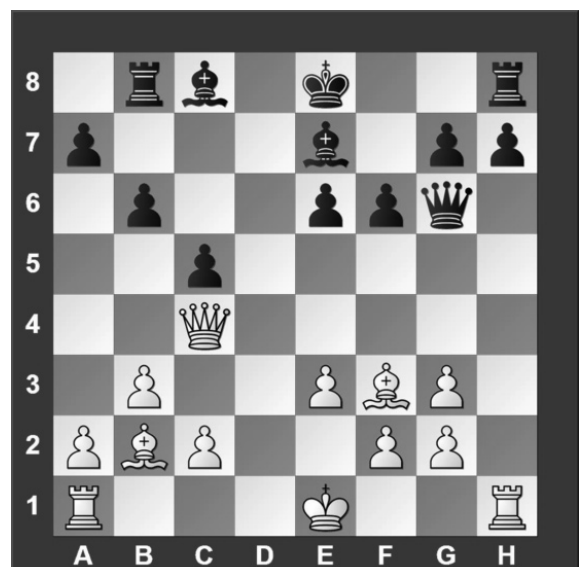
#3. White to move



What is White's best move?

- a) a×b4
- b) ♕f4
- c) ♘b6
- d) ♕×h4

#4. White to move



What is White's best move?

- a) ♔b5
- b) ♔a4
- c) ♕c6
- d) ♕h5

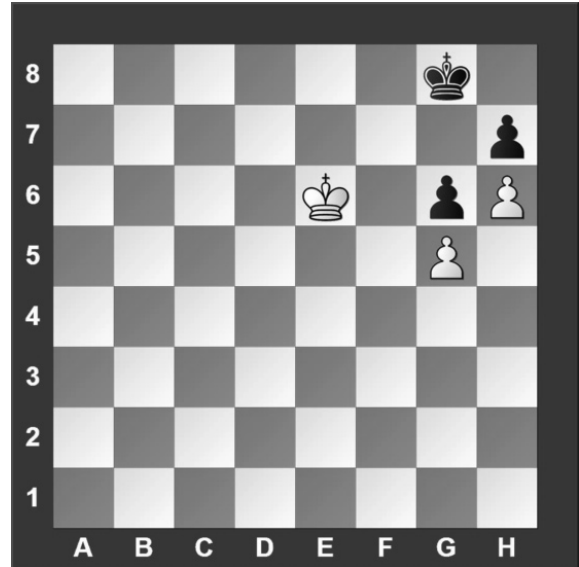
#5. White to move



What is White's best move?

- a) ♖d7
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- c) fxe5
- d) ♘d3

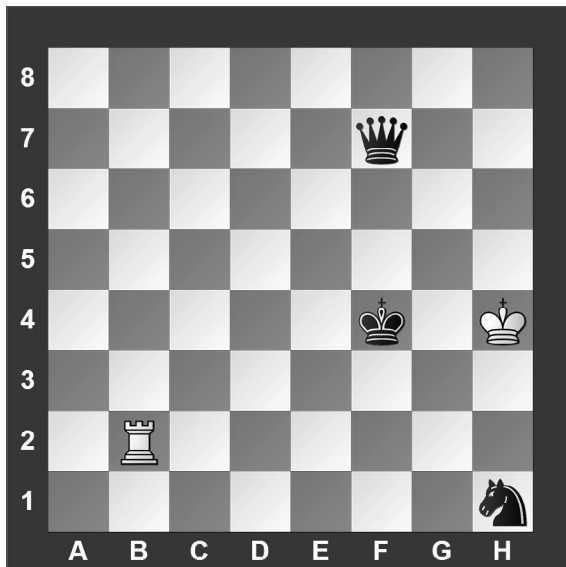
#6. White to move



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

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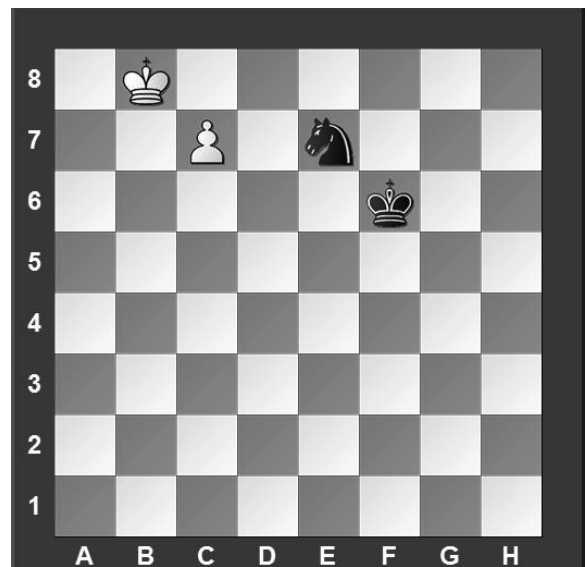
#7. White to move



What is White's best move?

- a) ♖f2
- b) ♖b4
- c) ♔h3
- d) ♖b1

#8. White to move



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

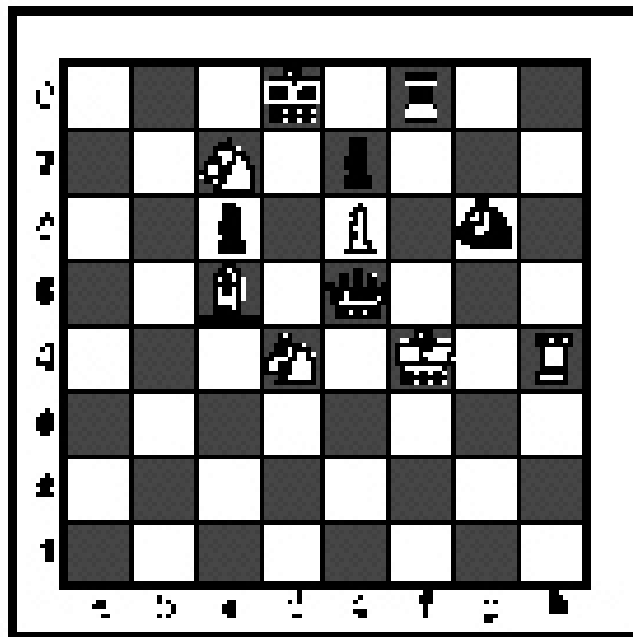
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- c) It is a draw
- d) It is not possible to tell

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Chess Puzzle Solving

grades 2 & 3

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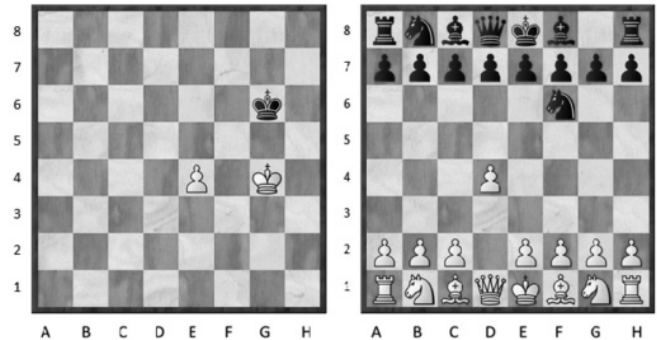


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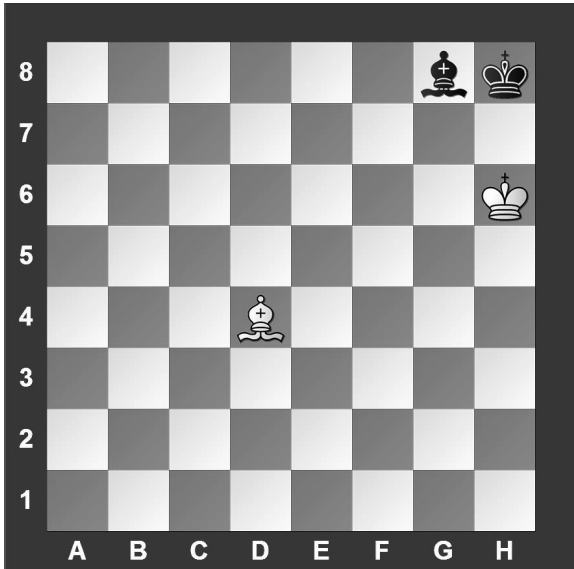
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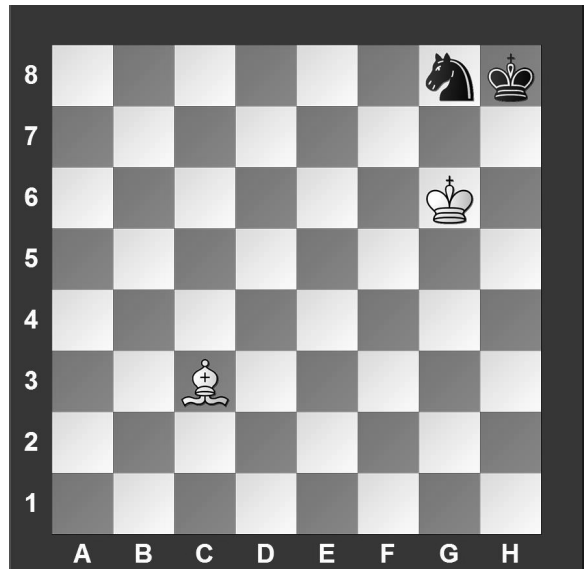
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What term best describes this situation?

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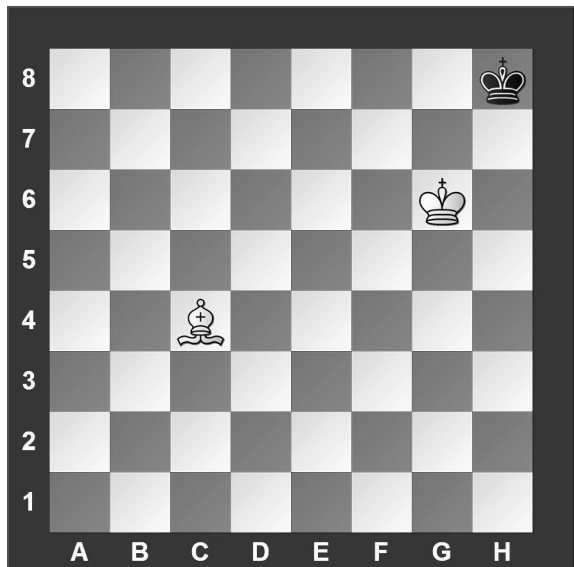
#2. Black to move



What term best describes this situation?

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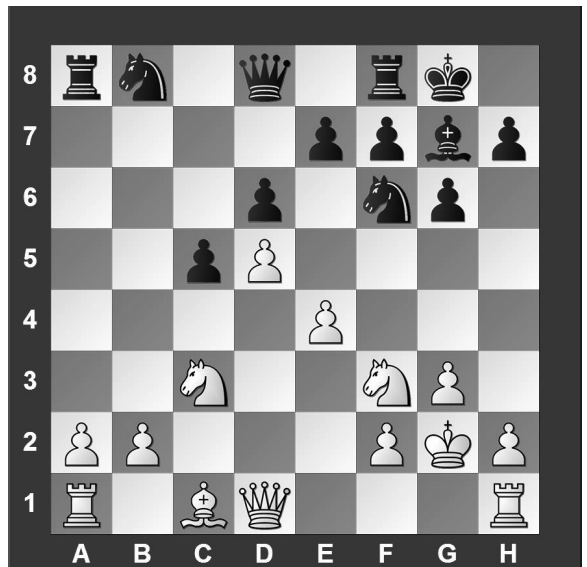
#3. Black to move



What term best describes this situation?

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

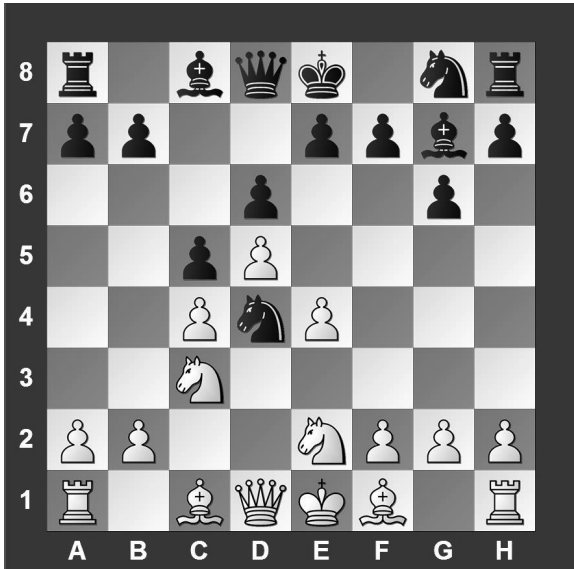
#4.



Which side has material advantage?

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

#5. 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 f-pawn
- d) White can't capture a pawn.

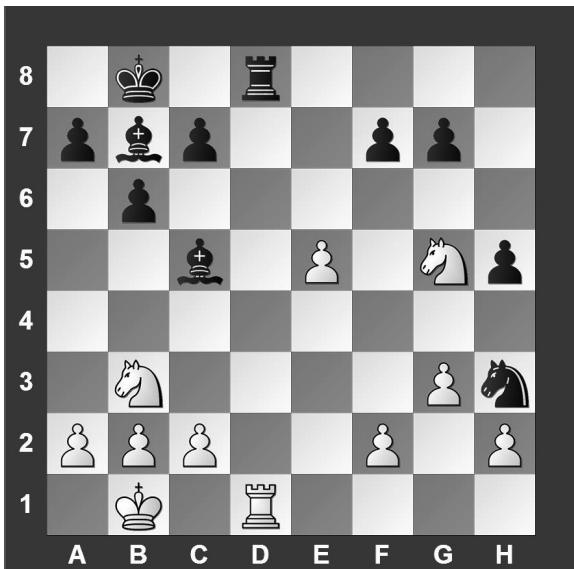
#6. White to move



Which move is possible for White?

- a) Short Castle
- b) Long Castle
- c) Take Black's Queen
- d) Take Black's Bishop

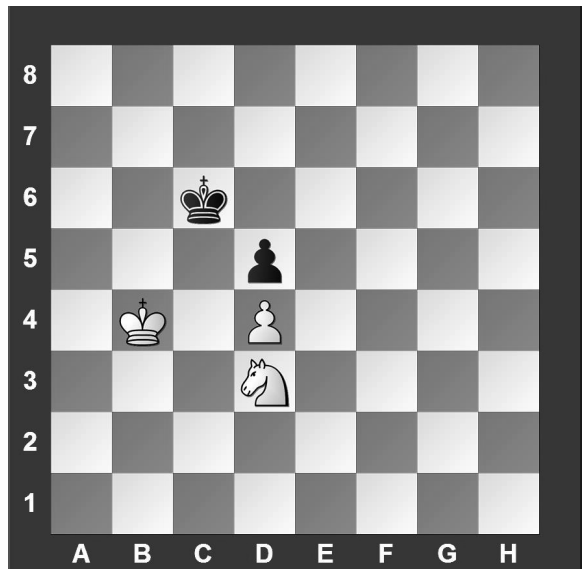
#7. White to move



What piece should White capture?

- a) Black's Knight
- b) Black's Pawn
- c) Black's Bishop
- d) Black's Rook

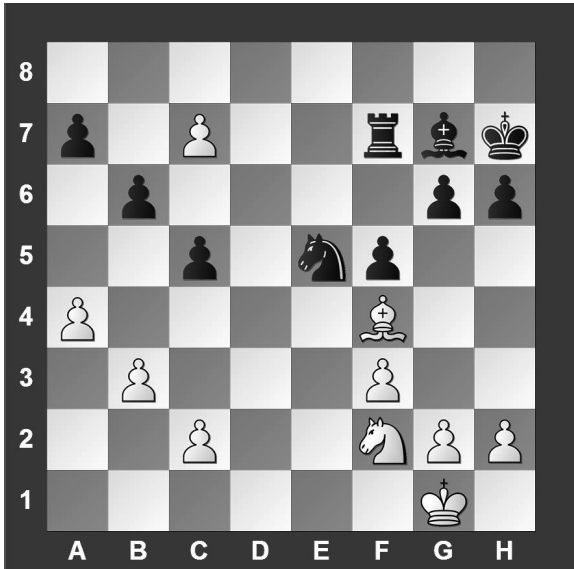
#8. White to move



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

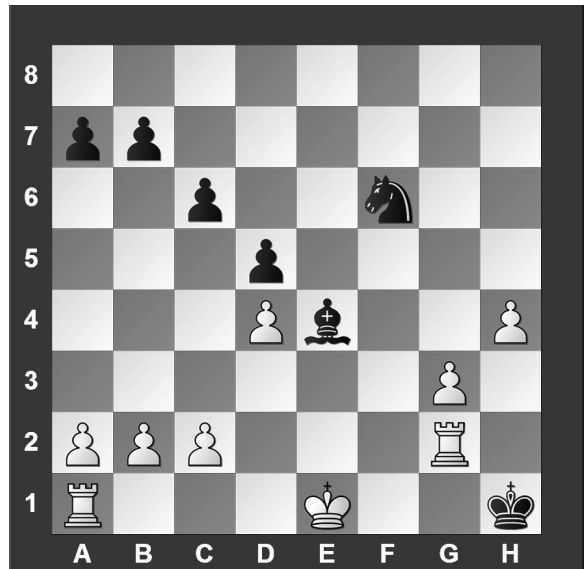
#9. White to move



What piece should White promote to?

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

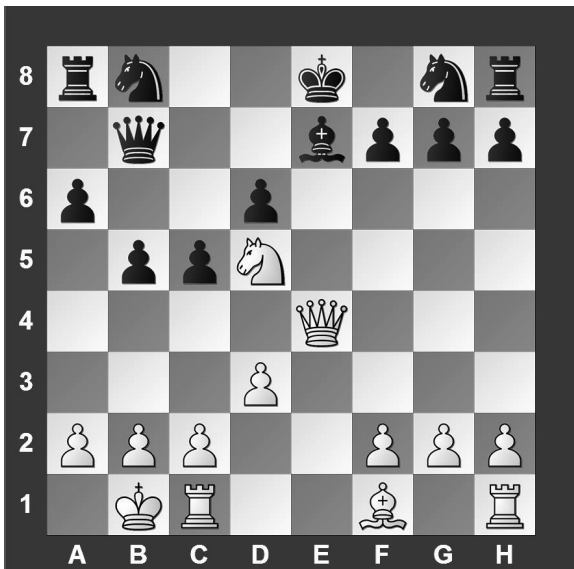
#10. White to move



If White can checkmate Black, how many moves will it take?

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

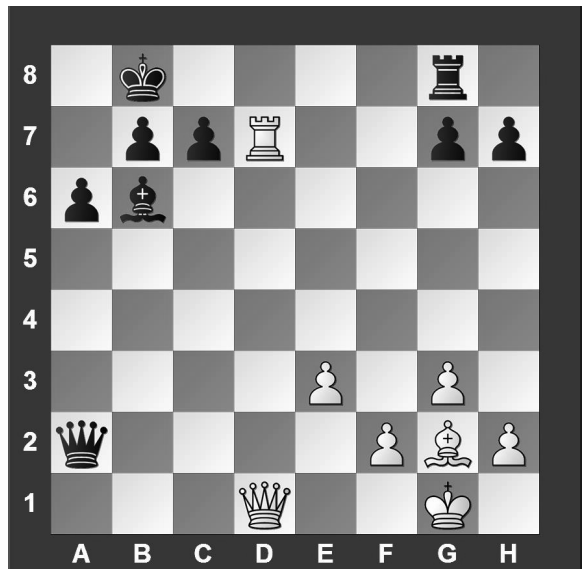
#11. White to move



What is White's best move?

- a) Nc7
- b) Kxe7
- c) Nf6
- d) Nx e7

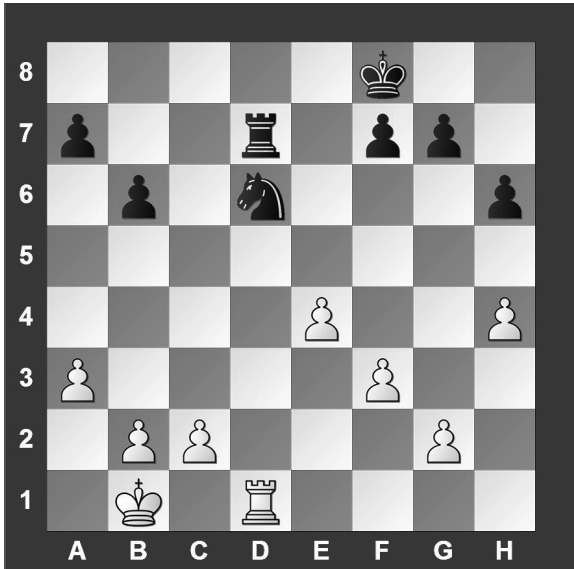
#12. White to move



What is White's best move?

- a) Rd8
- b) Qd5
- c) Kd5
- d) Kf3

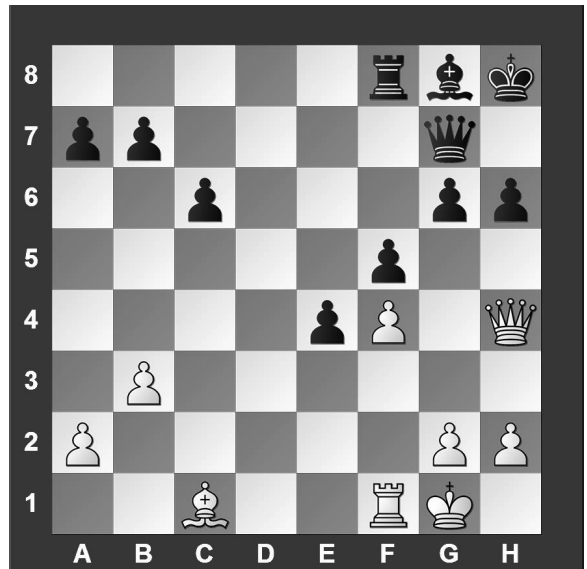
#13. White to move



What is White's best move?

- a) ♖d5
- b) c4
- c) ♖x d6
- d) e5

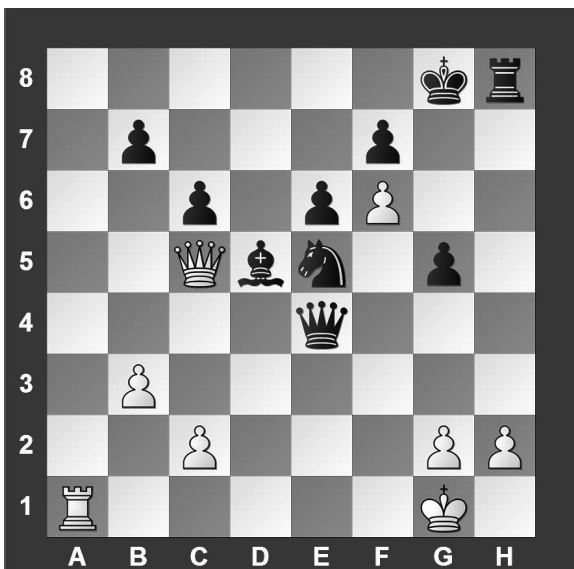
#14. White to move



What is White's best move?

- a) ♕b2
- b) ♖xh6
- c) ♖d1
- d) ♖f2

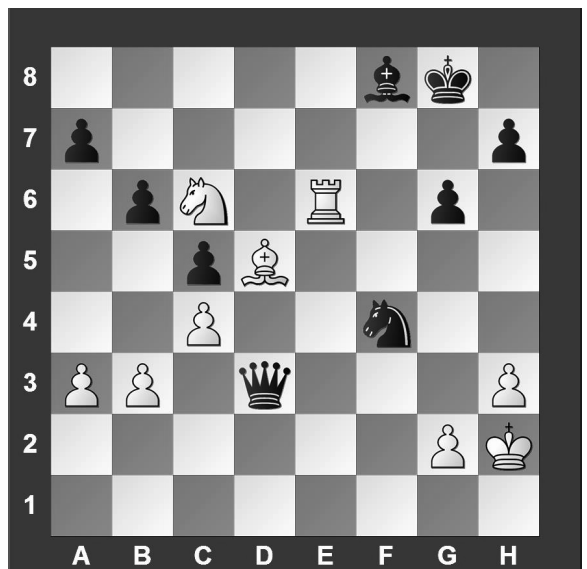
#15. White to move



What is White's best move?

- a) c4
- b) ♖f2
- c) ♖a8
- d) ♖f8

#16. White to move



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

- a) ♘e7
- b) ♖xg6
- c) ♖e8
- d) ♖e3



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Spring — Grades 2 & 3**

ANSWER KEY

Test

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

Tiebreaker

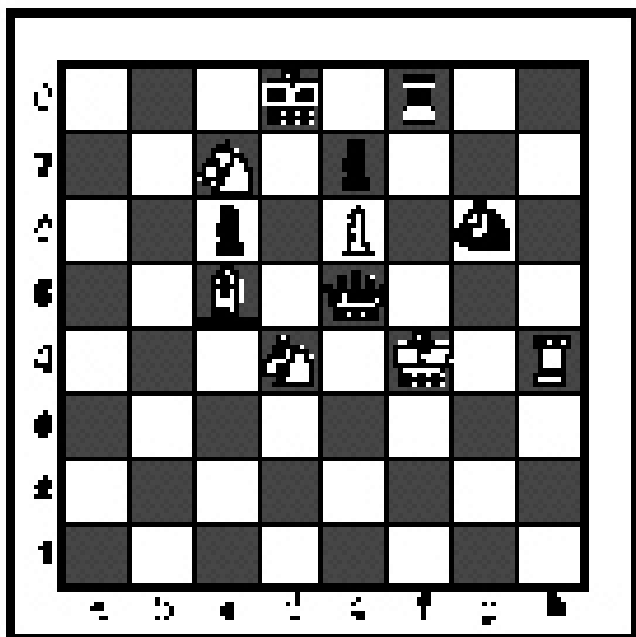
- | | |
|------|------|
| 1. B | 5. B |
| 2. A | 6. D |
| 3. C | 7. A |
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SPRING DISTRICT 2019-2020

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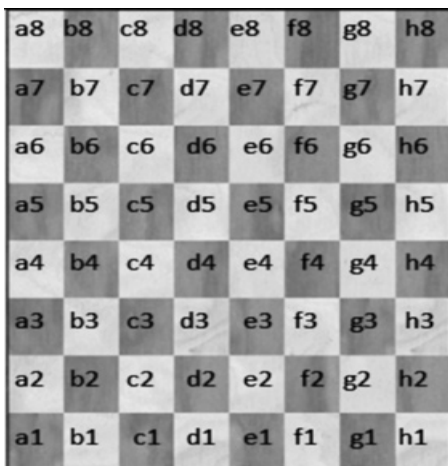
Chess Puzzle Solving

grades 4 & 5

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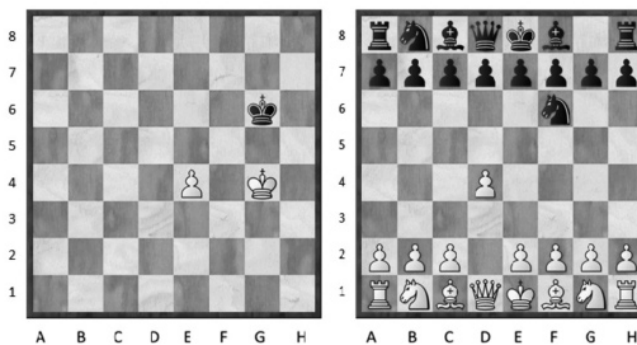


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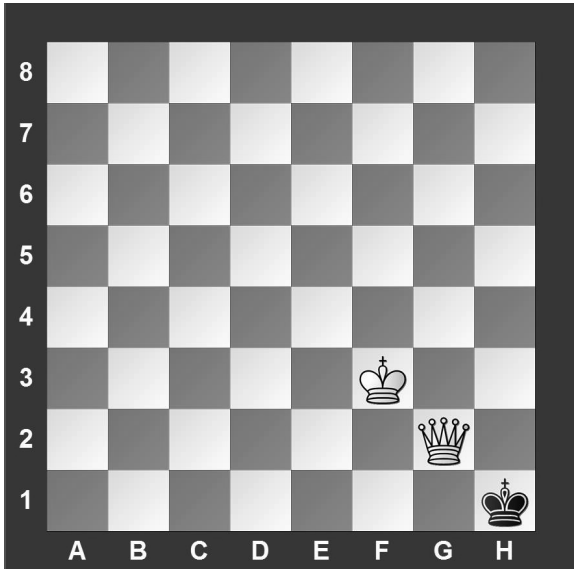
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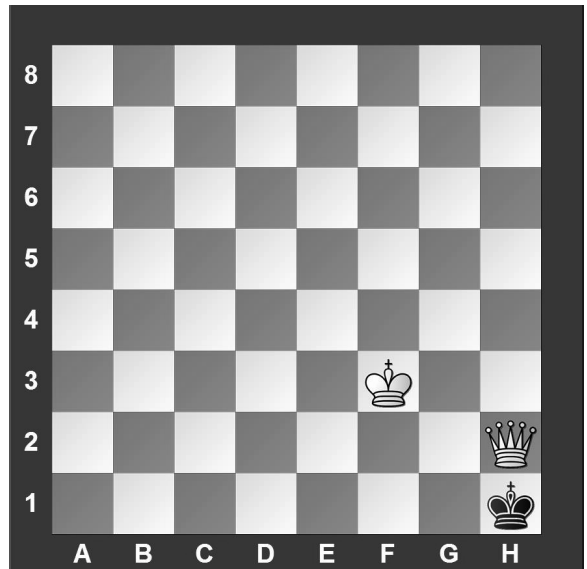
#1. Black to move



What term best describes this situation?

- a) Black is in checkmate.
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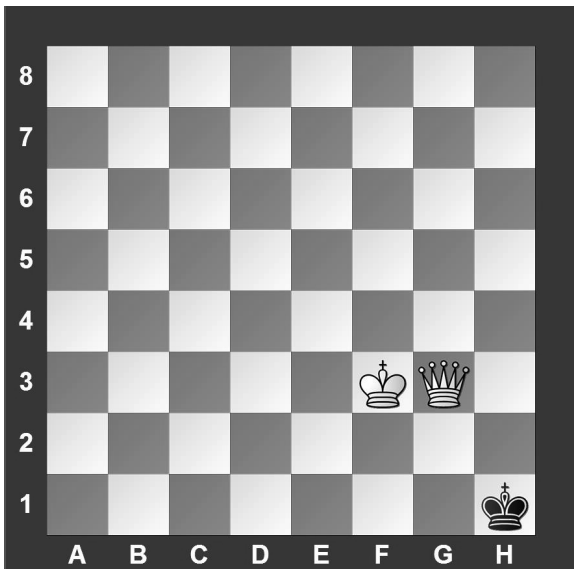
#2. Black to move



What term best describes this situation?

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

#3 Black to move.



What term best describes this situation?

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

#4.



Which side has material advantage?

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

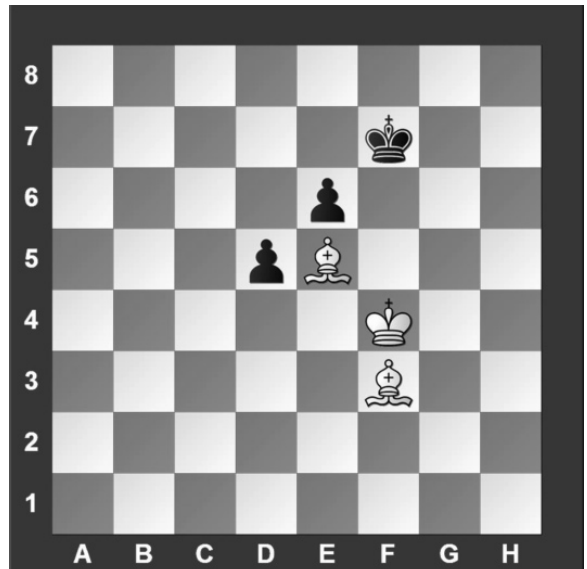
#5. White to move



Which move below is possible for White?

- a) Short Castle
- b) Long Castle
- c) Take Black's Knight
- d) Take Black's Queen

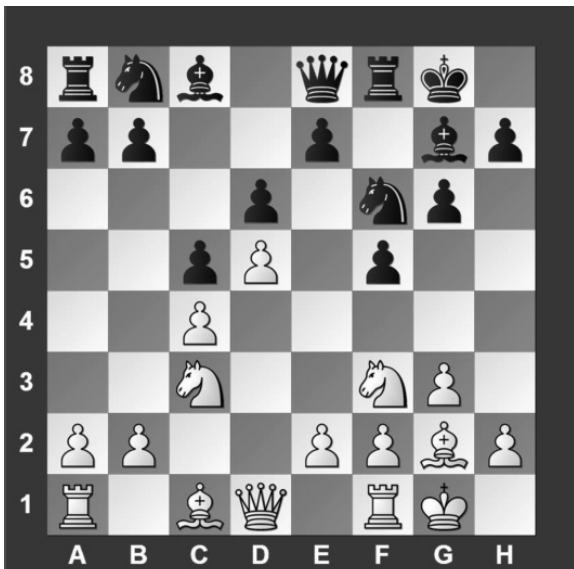
#6. White to move



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

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

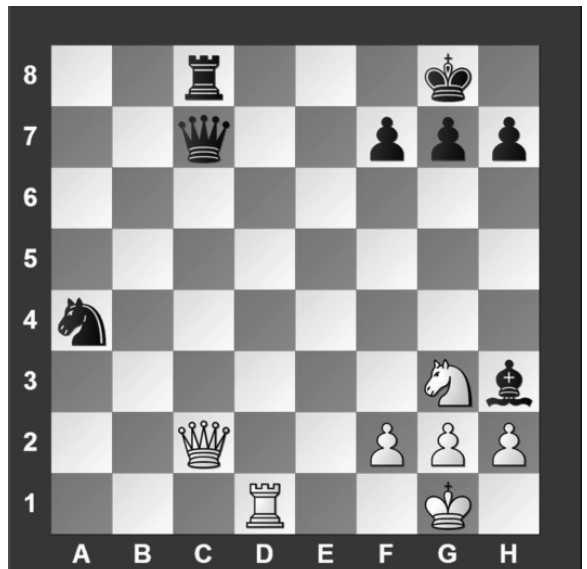
#7. White to move



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

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

#8. White to move



What piece should White capture?

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

#9. White to move



What is White's best move?

- a) ♔f6
- b) ♕g7
- c) ♖×d5
- d) ♞×f4

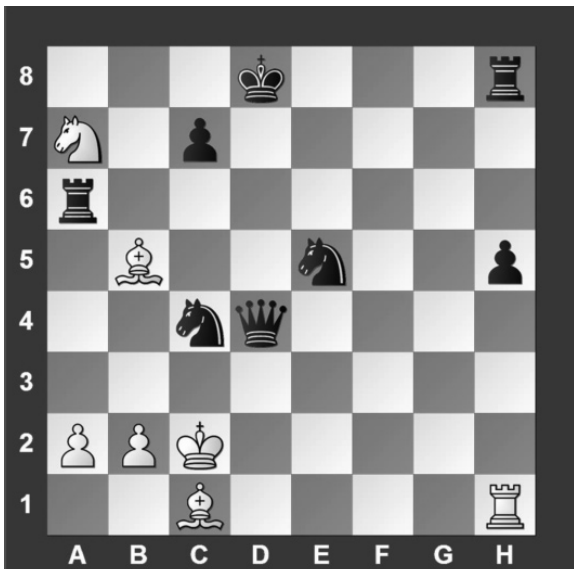
#10. White to move



What is White's best move?

- a) ♔h5
- b) ♔d7
- c) ♔e6
- d) ♖f3

#11. White to move



What is White's best move?

- a) ♞c6
- b) ♔×a6
- c) ♔g5
- d) ♖d1

#12. White to move



What is White's best move?

- a) ♖×h6
- b) ♖×h6
- c) g×f5
- d) ♖a6

#13. White to move



What is White's best move?

- a) ♖×a8
- b) ♕×h6
- c) ♕×d7
- d) ♗g4

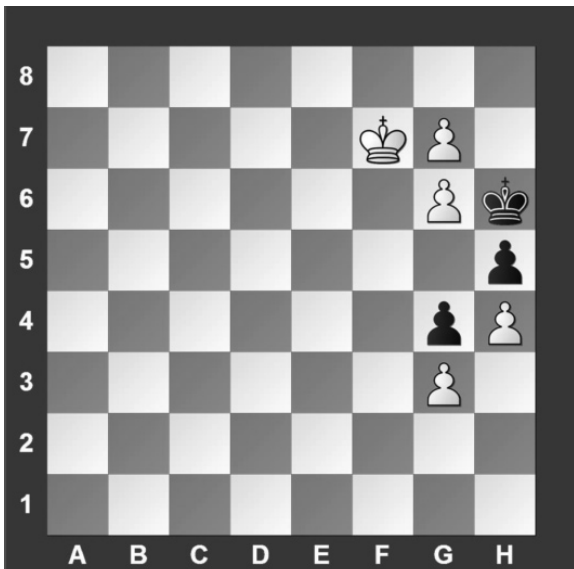
#14. White to move



What is White's best move?

- a) ♖×d8
- b) ♗×h7
- c) ♗g5
- d) ♕c2

#15. White to move



What piece should White promote to?

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

#16. White to move



What is White's best move?

- a) ♖×e8
- b) ♗d4
- c) ♖e1
- d) f4

#17. White to move



What is White's best move?

- a) ♔xg7
- b) ♖f6
- c) b4
- d) ♖xg7

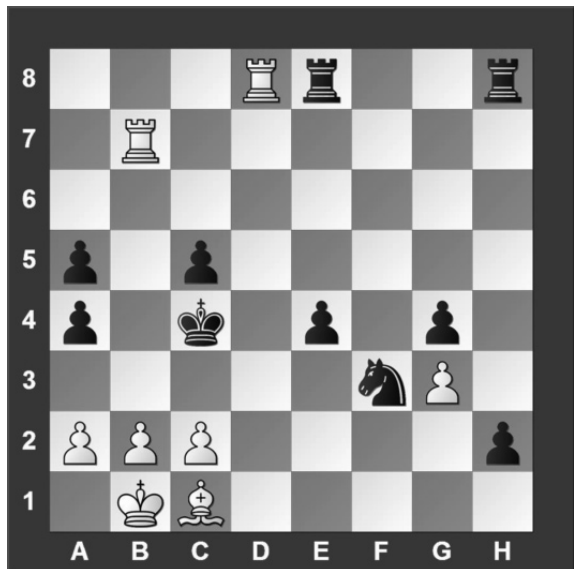
#18. White to move



What is White's best move?

- a) ♖e3
- b) ♙xf4
- c) ♖e1
- d) ♖e6

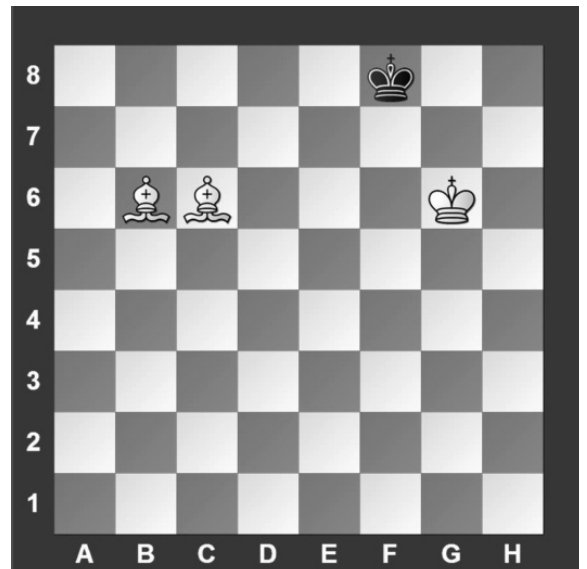
#19. White to move



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

- a) ♙d2
- b) ♖d1
- c) c3
- d) b3

#20. White to move



With the best play, how many moves will it take White to checkmate Black?

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



**University Interscholastic League
A+ Chess Puzzle Contest
2019-2020 Spring — Grades 4 & 5**

ANSWER KEY

Test

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

Tiebreaker

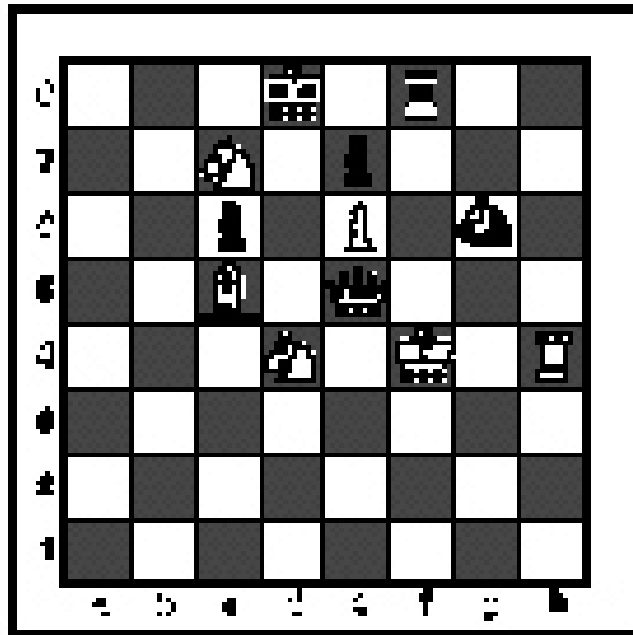
- | | |
|------|------|
| 1. B | 5. B |
| 2. A | 6. D |
| 3. C | 7. A |
| 4. D | 8. C |

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League

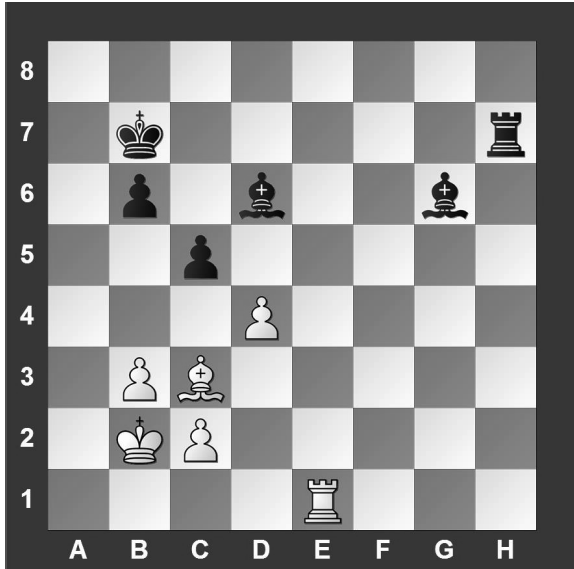


Chess Puzzle Solving

TIEBREAKER - ALL GRADES

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

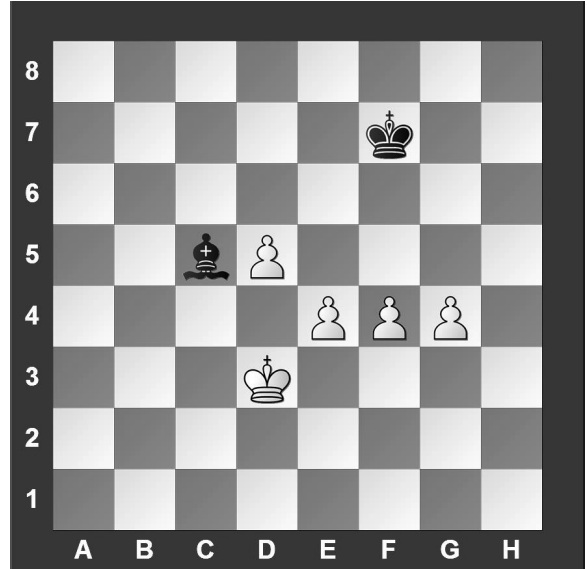
#1. White to move



What is White's best move?

- a) $d \times c5$
- b) $\text{K}e6$
- c) $\text{K}g1$
- d) $d5$

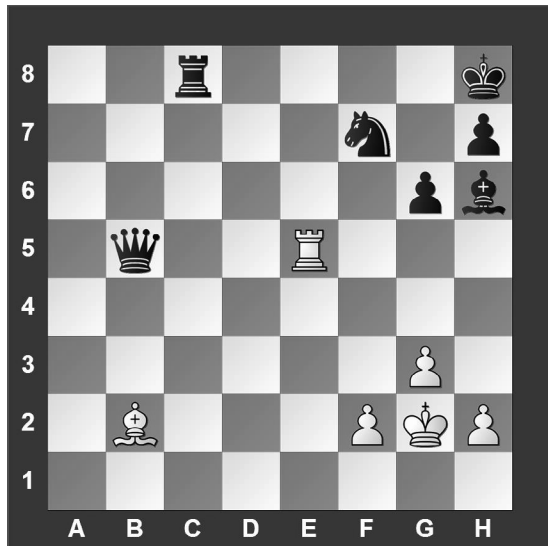
#2. White to move



What should be the outcome of the game?

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

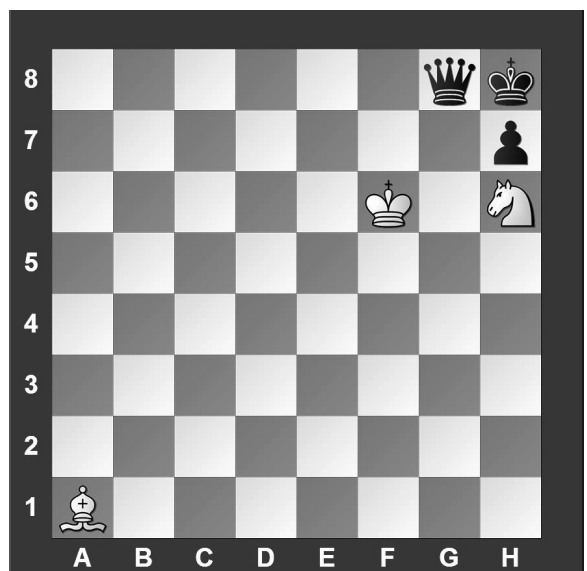
#3. White to move



What is White's best move?

- a) $\text{K} \times b5$
- b) $\text{K}h5$
- c) $\text{K}e8$
- d) $\text{K}c5$

#4. White to move



What is White's best move?

- a) $\text{K}e7$
- b) $\text{K}f5$
- c) $\text{N} \times g8$
- d) $\text{N}f7$

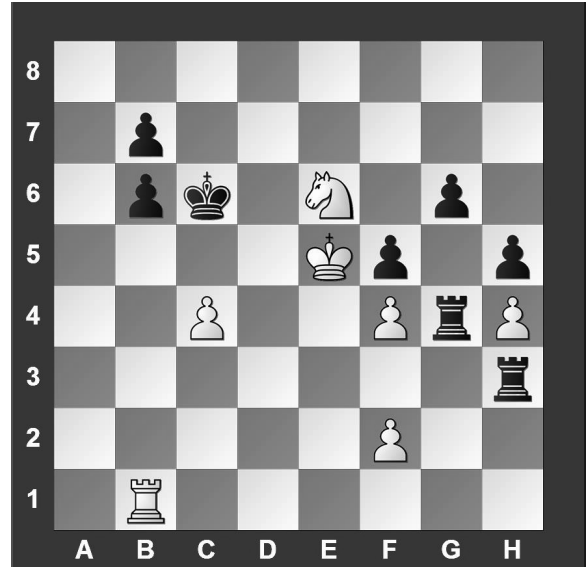
#5. White to move



What is White's best move?

- a) ♖g4
- b) ♜e5
- c) ♙xg7
- d) f4

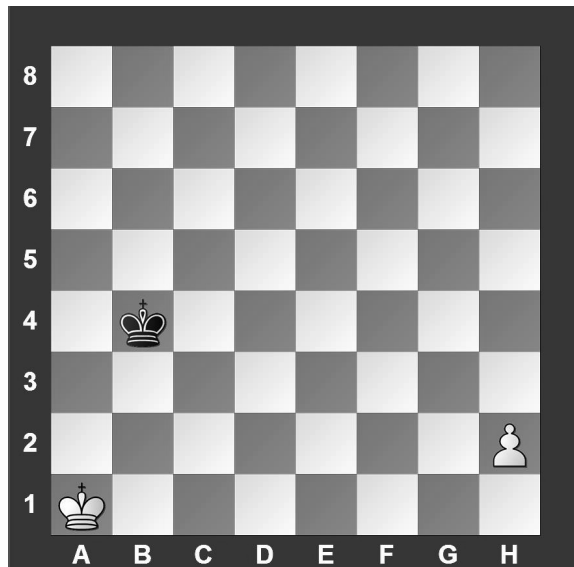
#6. White to move



What is White's best move?

- a) ♘d4
- b) c5
- c) f3
- d) ♜d1

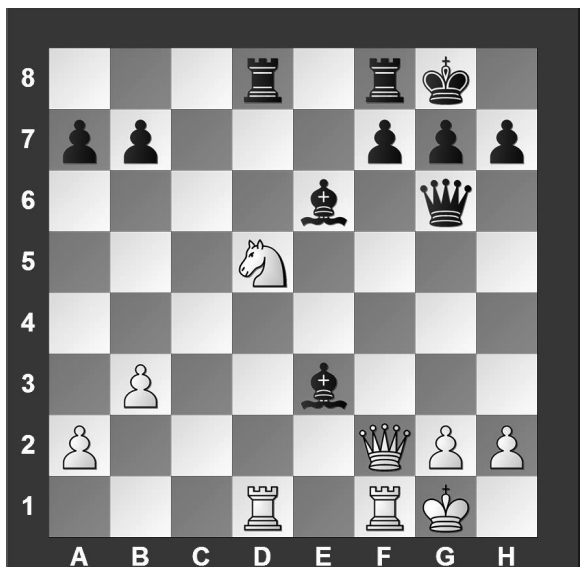
#7. White to move



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.

#8. White to move



What is White's best move?

- a) ♜xg3
- b) ♘xg3
- c) ♘e7
- d) ♘f4

Contestant Number _____

Contestant Name _____
(to be filled in after judging)

UIL A+ Creative Writing Evaluation Sheet

Elementary

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

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

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

(30%) 1 2 3 4 5 6

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

(10%) 1 2

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

TOTAL SCORE: _____/20

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT

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

Judge's signature _____



Creative Writing

Instructions for the Judges

Instructions

At some convenient time before the contest begins, the director shall discuss with the judges the criteria for evaluating the stories, making sure that they all have the same conception of those criteria and understand the relative importance to be accorded each. Each judge shall be given a copy of the evaluation sheet provided by the League office. Judges should also see the captioned picture prompts contestants were given to use in creating their stories. The stories must contain at least one of the pictured items, but there is no requirement that all items on the prompt page be included.

Criteria

The stories are to be evaluated as to relative excellence in creativity and interest (60%), organization (30%) and correctness of style (10%). Please make comments constructive and supportive. While judges are to consider all three elements in selecting the most effective stories, more weight should be given to creativity and interest than to organization, and to organization more than to correctness of style.

- (A) Interest depends primarily upon substance. It depends next upon clarity and upon including specific details and examples which individualize the story as an outgrowth of the writer's character and experience.
- (B) A well-organized story will present ideas in a logical and coherent manner.
- (C) Grammatical correctness of style includes avoiding errors in sentence structure, punctuation, grammar, spelling and word usage.

Completing Evaluation Sheets

Comments on the Creative Writing Evaluation Sheet should first identify and focus on the positive aspects of the story and then offer constructive criticism. Comments need not be long, but should be specific rather than general.

Rating the compositions

Judges shall read all of the stories submitted and, without marking on the manuscripts, shall rank them in order of their excellence; 1, 2, 3, 4, etc. If more than one judge is used, they shall then discuss the stories which have been ranked first through sixth place, any judge being permitted to alter his/her ranking as a result of the discussion. Judges are to reach a consensus in the papers ranked first through sixth.



A+ Creative Writing Contest

INVITATIONAL

GRADE 2

2019-2020

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



dragon



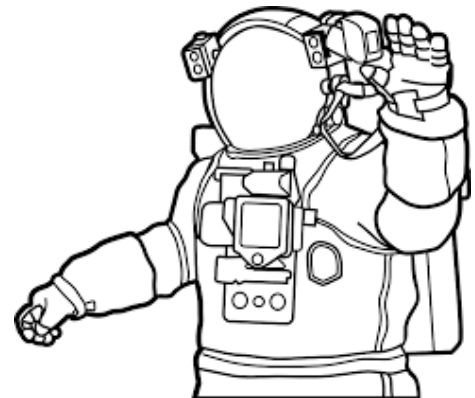
shoe



teddy bear



painting



astronaut



A+ Creative Writing Contest

FALL/WINTER DISTRICT

GRADE 2

2019-2020

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



car



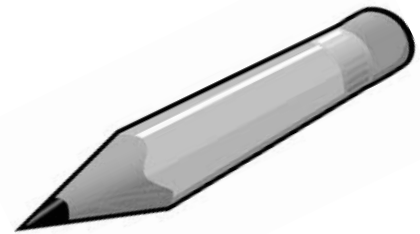
baseball hat



glasses



mountain



pencil



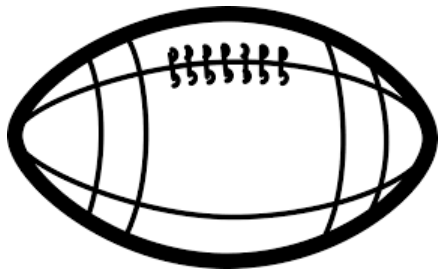
A+ Creative Writing Contest

SPRING DISTRICT

GRADE 2

2019-2020

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



football



chalkboard



coffee mug



umbrella



zebra

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 120. Initials _____

_____ out of 120. Initials _____

Papers contending to place:

_____ out of 120. Initials _____



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

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

Circle Grade Level: 5 6 7 8

1. _____

21. _____

2. _____

22. _____

3. _____

23. _____

4. _____

24. _____

5. _____

25. _____

6. _____

26. _____

7. _____

27. _____

8. _____

28. _____

9. _____

29. _____

10. _____

30. _____

11. _____

31. _____

12. _____

32. _____

13. _____

33. _____

14. _____

34. _____

15. _____

35. _____

16. _____

36. _____

17. _____

37. _____

18. _____

38. _____

19. _____

39. _____

20. _____

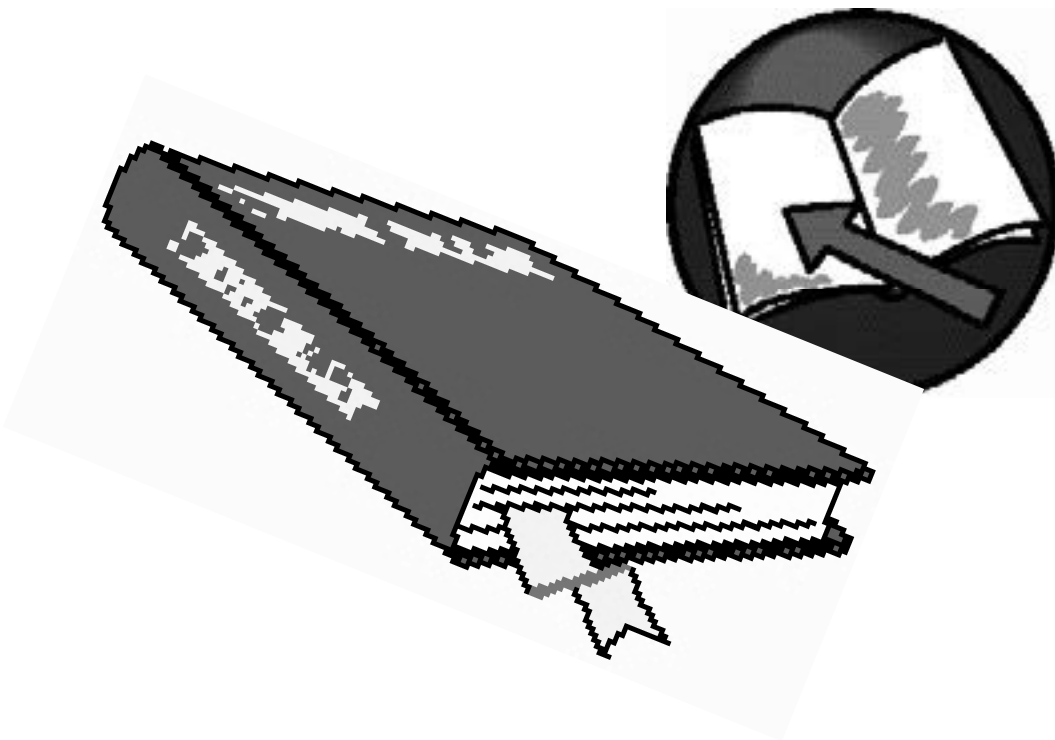
40. _____

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

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

**University Interscholastic League
2019-20 Dictionary Skills Contest
Invitational District Test — Grades 5 & 6**

1. The English horn is similar to which of the following instruments?
 - A. French horn
 - B. Trumpet
 - C. Oboe
 - D. Saxophone

2. Which of the following describes a prince or prince's consort?
 - A. The son of the reigning queen
 - B. The nephew of the reigning queen
 - C. The husband of the reigning queen
 - D. The father of the reigning queen

3. Which of the following is a color of the snowy owl?
 - A. Gray spotted with brown
 - B. White spotted with brown
 - C. Brown spotted with white
 - D. Black spotted with white

4. What is a dashiki?
 - A. A type of shoe
 - B. A type of hat
 - C. A type of jewelry
 - D. A type of one-piece

5. From what region is the peacock?
 - A. South America
 - B. Antarctica
 - C. Asia
 - D. Western Europe

6. What is the upper limit for the weight of a bantamweight boxer?
 - A. 200 pounds
 - B. 180 pounds
 - C. 118 pounds
 - D. 218 pounds

7. For what animal is a currycomb used?
 - A. Cats
 - B. Horses
 - C. Dogs
 - D. Birds

8. Which of the following has exactly 10 angles and 10 sides?
 - A. Heptagon
 - B. Nonagon
 - C. Decagon
 - D. Pentagon

9. A Leyden jar stores what?
 - A. Water
 - B. Soil
 - C. Electric charge
 - D. Oxygen

10. A liverwort resembles what type of plant?
A. Moss
B. Carnation
C. Oak tree
D. Ivy
11. The potato beetle is also known as what?
A. Kansas potato beetle
B. Texas potato beetle
C. California potato beetle
D. Colorado potato beetle
12. Hyperspace contains more than how many dimensions?
A. Two
B. Three
C. Four
D. Five
13. Which of the following is a use of steel wool?
A. Polishing
B. Sewing
C. Welding
D. Carpentry
14. How are sforzando notes played?
A. Quietly
B. Accented
C. Loudly
D. With decreasing volume
15. What do platelets assist with?
A. Blood flow
B. Joint movement
C. Brain function
D. Blood clotting
16. What is carbon dating used for?
A. Age measurement
B. Quality measurement
C. Mass measurement
D. Cleanliness measurement
17. What is a gaoler?
A. A garbage collector
B. A type of bird call
C. A species of deer
D. A jailer
18. Which of the following describes a gewgaw?
A. An antique
B. An item of little worth
C. A piece of diamond jewelry
D. A family heirloom
19. In what part of the United States was the heath hen found?
A. Southwestern
B. Southeastern
C. Northwestern
D. Northeastern
20. Ornithology deals with what?
A. Cows
B. Horses
C. Birds
D. Dinosaurs

21. Sunderland is in which country?
 A. Switzerland
 B. Russia
 C. Germany
 D. England
22. Horace Greeley lived between what years?
 A. 1910-1970
 B. 1776-1850
 C. 1940-2010
 D. 1811-1872
23. How much more energy than the sun does a supernova give off?
 A. Ten times
 B. One hundred times
 C. One million times
 D. One billion times
24. The Achilles tendon joins the muscles of which body parts?
 A. Heel and leg
 B. Elbow and arm
 C. Finger and hand
 D. Neck and shoulder
25. In a compote, what is cooked in syrup?
 A. Nuts
 B. Sweets
 C. Fruit
 D. Chocolate
26. Which of the following is a synonym for sleuth?
 A. Detective
 B. Businessperson
 C. Artist
 D. Writer
27. Where is Occitan spoken?
 A. Germany
 B. Austria
 C. Hungary
 D. France
28. To what function is the optic lobe connected?
 A. Hearing
 B. Vision
 C. Movement
 D. Taste
29. Which of the following are two colors that the sweetbriar may have?
 A. White and rosy pink
 B. Rosy pink and bright orange
 C. Pale pink and blue
 D. Yellow and white
30. What is a tintinnabulation?
 A. A type of bird call
 B. A way of calculating a math problem
 C. The sound of ringing bells
 D. None of the above

31. What do you call something related to soil?

- A. Polarized
- B. Anemic
- C. Charged
- D. Edaphic

32. A hogshead is equal to how many liters?

- A. 63
- B. 50
- C. 100
- D. 238

Match each of the following words to its correct meaning:

- | | |
|------------------------|---|
| _____ 33. kiwi | A. being noisy and hard to control |
| _____ 34. emote | B. a large crater formed by an explosion |
| _____ 35. mezzanine | C. having the ability to move |
| _____ 36. vane | D. a person who fights for a cause |
| _____ 37. paladin | E. a flightless New Zealand bird |
| _____ 38. obstreperous | F. to give expression to emotion |
| _____ 39. caldera | G. a story between two main stories of a building |
| _____ 40. motile | H. the web or flat expanded part of a feather |

**University Interscholastic League
2019-20 Dictionary Skills Contest
Invitational District Test — Grades 5 & 6**

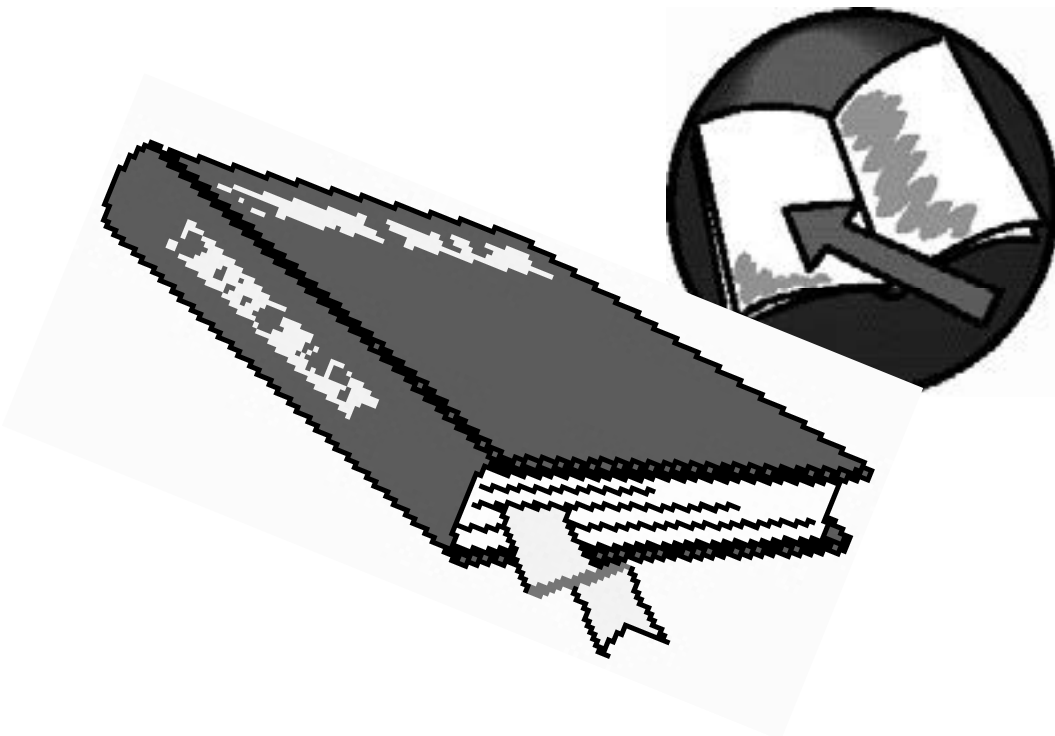
Answer Key

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

FALL/WINTER DISTRICT 2019-2020
A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

**University Interscholastic League
2019-20 Dictionary Skills Contest
Fall/Winter District Test — Grades 5 & 6**

1. In what game would you find an end run happen?
A. tennis
B. basketball
C. soccer
D. football
2. If someone is in a dither, they could also be described as being what?
A. nervous
B. shocked
C. sad
D. happy
3. How many characters does a pica provide to the inch?
A. 10
B. 6
C. 17
D. 13
4. What is the name for an American was on the side of the British during the American Revolution?
A. Kumquat
B. Leech
C. Tory
D. Senior
5. What kind of animal are you most likely to find in a cote?
A. cougar
B. pigeon
C. elephant
D. camel
6. How many years did Odysseus wander after the Trojan war?
A. 2
B. 8
C. 6
D. 10
7. Moor conquered Spain in the 8th century and ruled until what year?
A. 1492
B. 1462
C. 1495
D. 1482
8. What is the name of a book of sacred writings accepted by Muslims?
A. Bible
B. Koran
C. Anthology
D. Torah
9. What is mixed with gasoline in a carburetor to make the gasoline burn easily?
A. lead
B. oil
C. air
D. water
10. What is another name for a husbandman?
A. scuba diver
B. player
C. farmer
D. coach

22. Which of the following animals resemble but are smaller than an African ostrich?
A. leghorn
B. rhea
C. limpet
D. mongoose
23. Which of the following problem types is most unlikely to be solved using Fortran
A. scientific
B. engineering
C. mathematical
D. historical
24. How many square yards are in an acre?
A. 640
B. 4840
C. 43,560
D. 144
25. What does a deponent give?
A. advice
B. an education
C. evidence
D. excuses
26. Which of the following is **NOT** associated with the abbreviation BO?
A. best offer
B. body odor
C. backup operator
D. box office
27. What was the name of the first American woman in space?
A. Mary Eddy
B. Sally Ride
C. Rosa Parks
D. Helen Keller
28. Which of the following is an example of fermentation?
A. souring of milk
B. a tire rolling
C. a candle melting
D. temperature change
29. How many sides does a lugsail have?
A. 2
B. 8
C. 6
D. 4
30. If something is outmoded, it is no longer what?
A. acceptable
B. tasty
C. bright
D. shiny
31. How many miles is Long Island?
A. 190 miles
B. 118 miles
C. 210 miles
D. 300 miles
32. What is celebrated on February 12th or the first Monday in February?
A. Memorial Day
B. Valentine's Day
C. Lincoln's Birthday
D. Labor Day

Match each of the following words to its correct meaning:

- | | |
|----------------------|--|
| _____ 33. retinol | A. a person who has recently joined a religion |
| _____ 34. neophyte | B. a hard or painful struggle |
| _____ 35. gingivitis | C. to eat greedily |
| _____ 36. throe | D. the most common form of vitamin A |
| _____ 37. patriotism | E. inflammation of the gums |
| _____ 38. transfuse | F. a two-wheeled carriage with a folding top |
| _____ 39. wolf | G. to cause to pass from one to another |
| _____ 40. chaise | H. love of one's own country |

**University Interscholastic League
2019-20 Dictionary Skills Contest
Fall/Winter District Test — Grades 5 & 6**

Answer Key

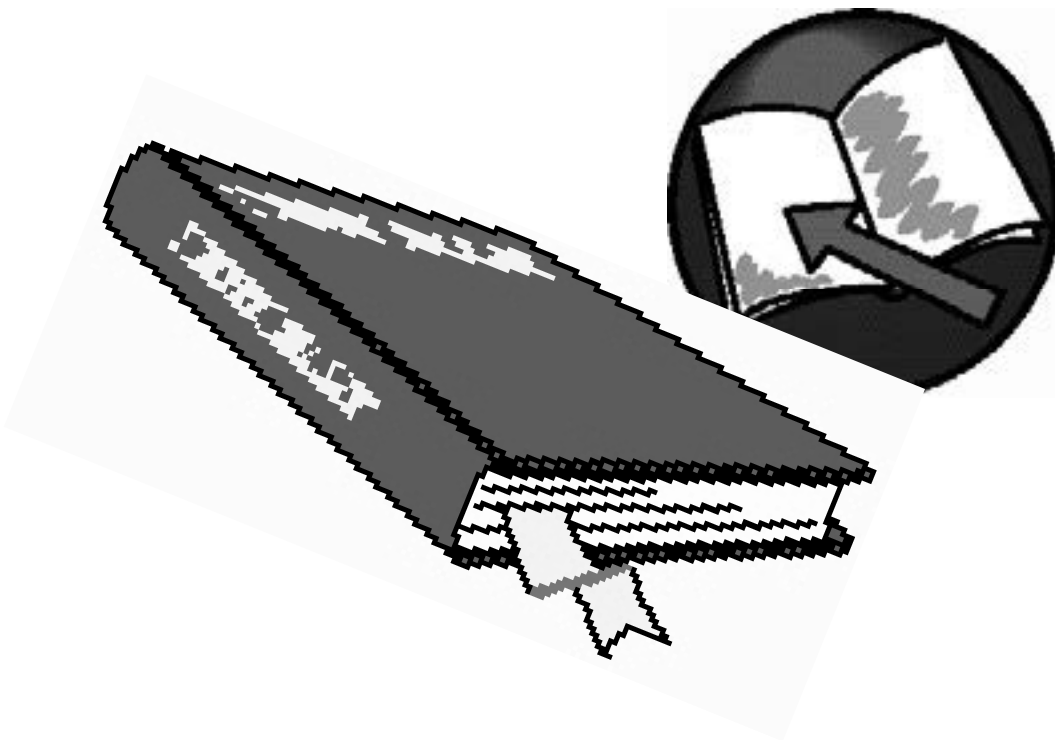
- | | |
|-------|-------|
| 1. D | 21. C |
| 2. A | 22. B |
| 3. A | 23. D |
| 4. C | 24. B |
| 5. B | 25. C |
| 6. D | 26. C |
| 7. A | 27. B |
| 8. B | 28. A |
| 9. C | 29. D |
| 10. C | 30. A |
| 11. D | 31. B |
| 12. B | 32. C |
| 13. C | 33. D |
| 14. A | 34. A |
| 15. B | 35. E |
| 16. B | 36.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

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Dictionary Skills

grades 5 & 6

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

**University Interscholastic League
2019-20 Dictionary Skills Contest
Spring District Test — Grades 5 & 6**

1. What treasure was sought and recovered by Jason and the Argonauts?
A. sphinx gold
B. mellophones
C. Golden Fleece
D. treasure trove
2. How many days after Easter is Ascension Day observed?
A. 10 days
B. 40 days
C. 20 days
D. 60 days
3. Which of the following languages is an example of tone language?
A. Chinese
B. French
C. Italian
D. Spanish
4. How many bytes are in a megabyte?
A. 1,006 bytes
B. 147 bytes
C. 1,048,576 bytes
D. 578,899 bytes
5. All of the following are examples of pachyderms **EXCEPT**?
A. elephant
B. hippopotamus
C. rhinoceros
D. crocodile
6. An Ashanti is from what part of Ghana?
A. southern
B. eastern
C. western
D. northern
7. Where might one find a rector?
A. a jail
B. a school
C. the gym
D. the train
8. Which of the following fruits is considered an aggregate fruit?
A. coconut
B. limes
C. raspberry
D. banana
9. How many parts is the front of a cloven foot divided into?
A. 3
B. 2
C. 4
D. 0
10. Around what year did the style of painting impressionism begin?
A. 1870
B. 1925
C. 1845
D. 1902

11. Which of the following came from the Latin word meaning “sisterhood”?
- | | |
|-------------|-------------|
| A. mestizo | C. compadre |
| B. sorcerer | D. sorority |
12. According to Greek mythology, what did Narcissus turn into after he pined away for love of his own reflection?
- | | |
|----------|-------------|
| A. stone | C. a flower |
| B. a dog | D. a beast |
13. During what era of geologic time was the earliest form of fish?
- | | |
|--------------|----------------|
| A. Paleozoic | C. Mesozoic |
| B. Cenozoic | D. Precambrian |
14. Which of the following are **NOT** considered Slavic?
- | | |
|--------------|-------------|
| A. Russian | C. Polish |
| B. Bulgarian | D. Filipino |
15. Which of the following instruments is used for measuring time?
- | | |
|-----------------|---------------|
| A. paddle wheel | C. anemometer |
| B. chronometer | D. reflector |
16. A dugong is related to which mammal?
- | | |
|-------------|-------------|
| A. manatee | C. otter |
| B. elephant | D. mongoose |
17. Which of the following river is under 50 miles long?
- | | |
|-----------------|----------------|
| A. Ottawa River | C. Meuse River |
| B. Indus River | D. Neva River |
18. Where does the vapor miasma come from?
- | | |
|----------------|----------------|
| A. cactus | C. swamps |
| B. animal dung | D. rain clouds |
19. What is a dust jacket used to cover?
- | | |
|-------------|----------------|
| A. books | C. flower beds |
| B. children | D. cars |
20. A ferrule is placed around the end of a wooden shaft to or handle prevent what?
- | | |
|--------------|------------------|
| A. burning | C. discoloration |
| B. splitting | D. shattering |
21. How long does an evening primrose live?
- | | |
|------------|-------------|
| A. 5 years | C. 10 years |
| B. 2 years | D. 7 years |

22. Who of the following could also be considered as a plain clothes man?
A. a pilot
B. an astronaut
C. a policeman
D. a movie director
23. What is the capital of Bhutan?
A. Omsk
B. Nicosia
C. Salween
D. Thimphu
24. What is the date that Michaelmas is celebrated?
A. September 5th
B. September 29th
C. August 8th
D. August 13th
25. What is the 19th letter of the Greek alphabet?
A. tau
B. sigma
C. chi
D. omicron
26. A taxonomist is a person that specializes in the taxonomy of plants and what else?
A. oceans
B. paper
C. animals
D. highways
27. What did Orpheus use to charm Pluto and Persephone in attempt to save his wife?
A. drums
B. a lyre
C. song
D. candles
28. Which vitamin is needed in order for blood to clot properly?
A. vitamin D
B. vitamin K
C. vitamin C
D. vitamin A
29. If Hannah is described as being an extrovert, she most likely would be described as being what?
A. shy
B. angry
C. unreserved
D. thirsty
30. Hypoglycemia is the abnormal decrease of what in the blood?
A. potassium
B. oxygen
C. iron
D. sugar
31. What is the abbreviation for lunar module?
A. L
B. LEM
C. LUM
D. Lu
32. The sousaphone was named after John Philip Sousa. What year did he pass?
A. 1932
B. 1954
C. 1854
D. 1904

Match each of the following words to its correct meaning:

- | | |
|-------------------|--|
| _____33. dross | A. a gate or valve for regulating a flow |
| _____34. penstock | B. a bundle of stalks and ears of grain |
| _____35. spiny | C. the scum that forms on molten metal |
| _____36. sojourn | D. full of difficulties |
| _____37. gainsay | E. to declare untrue |
| _____38. merit | F. to earn by service or performance |
| _____39. sheaf | G. in a violently excited state |
| _____40. amok | H. a temporary stay |

**University Interscholastic League
2019-20 Dictionary Skills Contest
Spring District Test — Grades 5 & 6**

Answer Key

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

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 75. Initials _____

_____ out of 75. Initials _____

Papers contending to place:

_____ out of 75. Initials _____



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

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

Circle Grade Level : 5 6 7 8

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

UIL LISTENING CONTEST - GRADES 5 & 6 INVITATIONAL MEET 2019-2020

Contest Script- "The History of the Liberty Bell"

Have you ever heard of the Liberty Bell? According to tradition, the Liberty Bell rang out from the Independence Hall tower on July 8, 1776 announcing to the citizens of Philadelphia, Pennsylvania that Colonel John Nixon was about to read, for the first time in public, the Declaration of Independence. From the time of its founding in 1682, Philadelphia had used its city bell to alert the public to danger or call for a city proclamation. Remember that at this time there was no television or radio that could be used to spread the news. When people heard the bell ring, they knew that something important was going on.

1:00 In 1751, a bell tower was built in the Pennsylvania State House as an effort to allow people to hear the bell at a greater distance. It is said that William Penn, the founder of Philadelphia, donated the money to purchase the bell. The Pennsylvania Assembly ordered a new bell in 1751 to commemorate the 50-year anniversary of William Penn's 1701 Charter of Privileges, Pennsylvania's original Constitution. On November 1, 1751, a letter was sent to Robert Charles, the Colonial Agent of the Province of Pennsylvania who was working in London. The original letter was signed by Isaac Norris, Thomas Leech, and Edward Warner. The letter stated that the Assembly wanted to purchase a bell for the State House steeple. The bell was ordered from Whitechapel Foundry, with instructions to inscribe on it a passage from the book of Leviticus found in the Bible. Chosen by Quaker Isaac Norris, speaker of the Assembly, this quotation says, "Proclaim Liberty throughout all the land unto all the inhabitants thereof." This was considered to be especially fitting because of William Penn's personal beliefs regarding liberty. Penn's ideas on religious freedom, his liberal stance on Native American rights, and his inclusion of citizens in enacting laws were forward thinking and quite unusual for the times. As a result of this

2:00

quote, the Liberty Bell has been shown to be a symbol of freedom because it speaks of the rights and freedoms valued by people the world over.

The bell arrived in Philadelphia on September 1, 1752 but was not hung until March 10, 1753. On that day, Isaac Norris recorded that while the men were hanging the bell, they rang it to try out the sound. The bell was mounted on a stand to test the sound, and at the first strike of the clapper, the bell's rim cracked. It is thought that the crack was the result of either flaws in the casting or perhaps the metal itself was too brittle. Two Philadelphia foundry workers named John Pass and John Stow were given the cracked bell to be melted down and recast. Although they were inexperienced in bell casting, they agreed to do their best.

3:00

John Pass had been the head of the Mount Holly Iron Foundry in New Jersey and before that had lived in Malta, a city with a tradition of bell casting. John Stow had been apprenticed as a brass founder only four years earlier. Neither man was considered a master bell caster. At John Stow's brass foundry on Second Street, the bell was broken into pieces and melted down. The molten metal was then cast into a new bell. The two men decided that the metal was too brittle and added about ten percent copper to the mix. When they finished, they inscribed their names on the front of the bell along with the name of the city and the year. City officials scheduled a public celebration to test the new bell. However, when the bell was struck, townspeople said that the sound of the bell was more like the clanging of two coal scuttles smashing together. The crowd laughed and mocked Pass and Stow. They quickly took the bell back to the foundry and melted it down again. This time the bell was made of bronze – a mixture of 70% copper, 25% tin, and 5% other metals including lead, gold, silver and zinc. On June 11, 1753, they once again brought the bell back to the city. This time, the sound was acceptable, and the bell was hung. The new bell weighed 2,080 pounds.

4:00

For many years, Statehouse Bell was rung to call the Assembly together and to summon people together for special announcements and events. It tolled when Benjamin Franklin was sent to England to address Colonial grievances. It tolled when King George III

ascended to the throne in 1761. It tolled to call together the people of Philadelphia to discuss the Sugar Act in 1764 and the Stamp Act in 1765. In fact, it tolled so frequently, that in 1772 a petition was sent to the Assembly stating that the people who lived in the vicinity of the State House were distressed by the continual toll of the bell in the Statehouse steeple. Although tradition says that it continued tolling for the First

5:00 Continental Congress in 1774, the Battle of Lexington and Concord in 1775 and on July 8, 1776, when it called citizens to hear reading of the Declaration of Independence produced by the Second Continental Congress, it is said that the steeple was in such bad condition that it wouldn't be likely.

In October 1777, the British occupied Philadelphia. Weeks earlier all bells, including the Liberty Bell, had been removed from the city. It was well understood that, if left, they would likely be melted down by the British and used to make a cannon. The Liberty Bell was removed from the city and hidden in the floorboards of the Zion Reformed Church in Allentown, Pennsylvania. After the Revolutionary War, throughout the period from 1790 to 1800, Philadelphia was the nation's capital. The bell was used to call state legislature into session, summon voters to vote, and to celebrate Washington's birthday and the Fourth of July.

6:00 Because of its inscription, "Proclaim Liberty Throughout All the Land Unto All the Inhabitants thereof," the bell became a symbol for abolitionists wishing to end slavery. The Anti-Slavery Record, a publication which heralded abolition, was the first to refer to the bell as the Liberty Bell in 1835. It wasn't until years later, though, that the name was widely adopted. Much of the modern image proclaiming the bell as a symbol of liberty and independence was a result of a writer, George Lippard. On January 2, 1847, he published a story called "Fourth of July, 1776" in the Saturday Review magazine. In the story, an old bellman sat by the bell on July 4, 1776, afraid that Congress would not declare independence. At the last minute, a young boy appears with a note that instructs the man to ring the bell for liberty.

7:00

In 1848, because of rising interest in the bell, the city decided to move it to the Assembly Room. This was the room where the Declaration of Independence and the United States Constitution had been debated and signed. At this time, the city constructed an ornate pedestal for the bell. In 1853, President Franklin Pierce visited Philadelphia and spoke of the bell as the symbol for American Liberty. It was shortly after this time that America became involved in the Civil War. In February of 1861, President-elect Abraham Lincoln came to the Assembly room in Philadelphia on his walk to his inauguration in Washington DC. In 1865, his body was returned to the Assembly Room after his assassination. At his head, the bell was positioned so that mourners could read the inscription.

8:00

If you see a picture of the bell, you will see that it has a large crack. No one recorded when the Liberty Bell first began to crack again, but it is believed that it began in the early 1840's during the years of use and travel. In fact, in an effort to repair the bell for use prior to George Washington's birthday in 1846, metal workers widened the original thin crack to prevent it from spreading. However, the repair was not successful. The Public Ledger newspaper reported that the repair failed when another fissure developed. This second crack, running from the abbreviation for "Philadelphia" up through the word "Liberty", silenced the bell forever. No one living today has heard the bell ring freely with its clapper.

9:00

In October of 2003, the National Historical Park in central Philadelphia opened the Liberty Bell Center. There visitors can admire the bell in a large glass gazebo. Behind the bell is a picture of Independence Hall, where it was originally housed. The exhibit also contains a display of historical documents and photos. Visitors can watch videos that explain the facts and myths about the Liberty Bell. Every July 4, at 2PM Eastern time, descendants of the original signers of the Declaration of Independence gently tap the Liberty Bell 13 times. Bells across the nation also ring 13 times to honor the patriots from the original 13 states. Each year, the bell is also gently tapped in honor of Martin Luther King Day. The ceremony began in 1986 at request of Dr. King's widow, Coretta Scott King as a reminder of the price men and women across the years have paid for liberty.

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Listening
grades 5 & 6

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

UIL LISTENING CONTEST - GRADES 5-6
INVITATIONAL 2019-2020
TEST

“The History of the Liberty Bell”

1. What was the name of Pennsylvania’s original constitution?
 - A. Charter of Privileges
 - B. the Pennsylvania Constitution
 - C. William Penn’s Constitution
 - D. 1701 Pennsylvania Charter

2. Who chose the quote from the Bible that is on the Liberty Bell?
 - A. William Penn
 - B. Isaac Norris
 - C. Robert Charles
 - D. Edward Warner

3. On what date did the Liberty Bell first arrive in Philadelphia?
 - A. November 1, 1751
 - B. March 10, 1753
 - C. September 1, 1752
 - D. December 10, 1753

4. What happened the first time the Liberty Bell was rung?
 - A. The Declaration of Independence was signed initiating the Revolutionary War.
 - B. The bell made a clanging sound like two coal scuttles smashing together.
 - C. The bell developed a crack that ran from the bottom to the top.
 - D. The bell’s rim cracked, and the bell had to be remade.

5. Which magazine gave the bell the name “Liberty Bell”?
 - A. the Saturday Evening Post
 - B. The Saturday Review
 - C. the Anti-Slavery Record
 - D. the Philadelphia Gazette

6. Where is the Liberty Bell Center?
 - A. the Bell Tower in Philadelphia
 - B. the National Historic Park in Philadelphia
 - C. Washington, D.C.
 - D. on Market Street in Boston, Mass.

7. Why was a bell tower was built in the Pennsylvania State House in 1751?
 - A. as an effort to help people hear the bell from long distances.
 - B. the old bell tower was considered unsafe for the new bell.
 - C. William Penn donated it while running for public office.
 - D. Abraham Lincoln was planning to stop there on his way to Washington D.C.

8. What foundry originally received the order for the Liberty Bell?
- A. Stowe and Company
 - B. Whitechapel Foundry
 - C. Foundry of London
 - D. Mount Holly Iron Foundry
9. How much did the repaired bell weigh in 1753? _____
10. In what year did the people of Philadelphia call for a discussion of the Sugar Act?
- A. 1773
 - B. 1764
 - C. 1765
 - D. 1766
11. In October 1777, the bell was moved to
- A. prevent the British from melting it down
 - B. safeguard it from looters during the war
 - C. Washington D.C. as a symbol of liberty and strength
 - D. take it to cities as a fund raiser to pay for the war
12. What city was the nation's capital from 1790 to 1800?
- A. Washington D.C.
 - B. Boston
 - C. Lexington
 - D. Philadelphia
13. Why did abolitionists use the bell as their symbol?
- A. The bell had remained intact despite adversity.
 - B. Abraham Lincoln called the bell a sacred treasure for all Americans.
 - C. The inscription called for liberty for all inhabitants.
 - D. The bell was forged as a banner for all free men.
14. What did metal workers do in 1846 to prevent the bell from cracking further?
- A. welded a strip of copper into the bell on the inside
 - B. drilled a hole at the top of the crack
 - C. widened the original crack
 - D. placed metal strips across the crack to keep it from widening
15. Where were the Declaration of Independence and the Constitution of the United States signed?
- A. the Statehouse room
 - B. the Assembly room
 - C. the Inauguration room
 - D. the Senate room
16. Which of the following men did NOT sign the letter ordering the original bell?
- A. Isaac Norris
 - B. Thomas Leech
 - C. Robert Charles
 - D. Edward Warner

17. What were the names of the men who were commissioned to melt down and recast the original bell after it cracked?
- A. John Pass and John Stow B. Robert Pass and Thomas Leech
C. Edward Stowe and Tom Pass D. Robert Charles and Isaac Norris
18. Who visited Philadelphia in 1853 shortly before the beginning of the Civil War and spoke of the bell as a symbol of American Liberty?
- A. Abraham Lincoln B. Thomas Jefferson
C. Franklin Pierce D. William Harrison

True/False

19. In 1776 a petition was sent to the Philadelphia Assembly stating that the people who lived in the vicinity of the State House were distressed by the continual toll of the bell in the Statehouse steeple.
20. The Liberty Bell was removed from Philadelphia during the Revolutionary War and hidden in the floorboards of the Zion Reformed Church in Allentown, Pennsylvania.
21. In February of 1861, President-elect Abraham Lincoln came to the Assembly room in Philadelphia on his walk to his inauguration in Washington D.C., and in 1865, his body was returned to the Assembly Room after his assassination.
22. On January 2, 1847, the story "Fourth of July, 1776" by George Lippard was published in the Saturday Review and was a catalyst for the bell becoming a symbol of liberty and independence.
23. On January 1, 1751, a letter was sent to the Colonial Agent of the State of Pennsylvania who was working in London with instructions to order the bell.
24. William Penn's ideas on religious freedom, his liberal stance on Native American rights, and his inclusion of citizens in enacting laws were forward thinking and quite unusual for the times.
25. Every July 4, at 2PM Eastern time, descendants of the original signers of the Declaration of Independence ring the Liberty Bell 13 times in honor of the original 13 colonies.

UIL LISTENING CONTEST - GRADES 5-6
INVITATIONAL 2019-2020
ANSWER KEY

“The History of the Liberty Bell”

- | | |
|--|------------------|
| 1. A | 14. C |
| 2. B | 15. B |
| 3. C | 16. C |
| 4. D | 17. A |
| 5. C | 18. C |
| 6. B | 19. False |
| 7. A | 20. True |
| 8. B | 21. True |
| 9. 2080 pounds (two thousand eighty pounds) | 22. True |
| 10. B | 23. False |
| 11. A | 24. True |
| 12. D | 25. False |
| 13. C | |

**UIL LISTENING CONTEST - GRADES 5 & 6
FALL/Winter District 2019-2020**

Contest Script- "KATHERINE JOHNSON"

When you think NASA, what do you think of? Astronauts? Space travel? Chances are that you don't think of Katherine Johnson. Most of us have never even heard of her. However, she played a very important role in putting the first man on the moon. Who was Katherine Johnson? Let's find out.

Katherine Johnson was born in White Sulphur Springs, West Virginia, on August 26, 1918. Her parents, Joylette and Joshua Coleman had four children. Her mother was a teacher, and her father was a lumberman, farmer, and handyman and worked at the Greenbrier Hotel. Not much is known about her early life, but we do know that she loved to count. She counted everything she could. It is said that she would count the number of steps she took to get from one place to another, the number of steps she would climb or descend, even the forks and plates when she washed the dishes.

1:00 She loved to learn, and she loved learning math the most! Because Greenbrier County did not offer public schooling for African-American students past the 8th grade, the Colemans arranged for their children to attend high school at Institute, West Virginia. Institute was a high school located on the campus of the historically black West Virginia State College. This was during the time in our country that many public schools and colleges were segregated. She started high school at the age of 10, so her parents split their time living near Institute during the school year and White Sulphur Springs during the summer.

At the age of 14, she enrolled in West Virginia State College as a college freshman. She quickly progressed through the math curriculum there. A math professor, W.W.

Schieffelin Claytor, saw her enormous potential and took her under his wing. Claytor was only the third African American to earn a PhD in Mathematics. In fact, Claytor added new math courses to the college curriculum just for Katherine. She learned how to solve big problems by using math, especially geometry. Geometry is a kind of math that uses lines, shapes and angles. Katherine graduated with highest honors in 1937 and took a job teaching at a black public school in Marion, Virginia.

2:00

In 1939, West Virginia decided to integrate its graduate schools. To integrate meant that it would allow students of all races and cultures to attend together. West Virginia State's president Dr. John W. Davis selected Katherine and two male students as the first black students to be offered spots at West Virginia University in Morgantown, West Virginia. Katherine left her teaching job and enrolled as a graduate student in the math program. At the end of the first year, Katherine, who had recently married, decided to leave school and start a family. She and her husband, James Goble, had three daughters. Katherine returned to teaching after her husband became very sick in order to support her family.

When she was 34, she heard that an organization called NACA (the National Advisory Committee for Aeronautics) was hiring African American women to solve math problems. This organization was named Langley Memorial Aeronautical Laboratory and was located near Langley field in Hampton, Virginia. It was headed by fellow West Virginian Dorothy Vaughan. Katherine applied for one of the jobs, but the jobs were already taken. Not to be deterred, Katherine applied again the next year, and this time she was hired. Katherine and James decided to move their family to Newport News, Virginia in order for her to begin her work at Langley in the summer of 1953. She worked with a large group of women who were called "computers" and worked in the Guidance and Navigation Department.

3:00

Katherine had only worked there for two weeks when Dorothy Vaughan assigned her to a project in the Maneuver Loads Branch of the Flight Research Division. What started out as a temporary position became permanent. Katherine spent the next four years analyzing data from test flights and worked on the investigation of a plane crash. Because Katherine was very interested in learning all she could, she asked a lot of questions. She started going to meetings that only men attended. Soon she became a team member who worked on different space projects for NACA. In December 1956, just as she was finishing a large project, her husband died of brain cancer. In 1959, Katherine married James A. Johnson who had been a second lieutenant in the army and was a veteran of the Korean War.

4:00

In 1957, the Soviet Union launched a satellite they named Sputnik. Katherine was asked to provide math support for a 1958 document, Notes on Space Technology. This was a series of lectures given by engineers in the Flight Research Division and the Pilotless Aircraft Research Division. Engineers from these groups formed the core of NACA's first attempt at discovering how to travel into space. Since Katherine had worked with many of these men in the past, when NACA became NASA later that year, she was invited to stay with the program. She did trajectory analysis for Alan Shepard's May 1961 mission Freedom 7. This was America's first human spaceflight. In 1960, she and engineer Ted Skopinski co-authored a report that laid out the equations which described the specifications needed to land an orbital space flight. It was the first time a woman in the Flight Research Division had received credit as an author of a research report.

In 1962, the United States decided to attempt to send a manned spacecraft to the moon. In order to accomplish this, NASA would have to solve many difficult math problems. Katherine studied how to use geometry for space travel. She figured out the paths for the spacecraft to orbit the earth and then land on the moon. The complexity of the orbital flight required that a worldwide communications network be constructed which would link tracking stations around the world to the IBM computers Washington,

5:00 D.C., Cape Canaveral, and Bermuda. These computers had been programmed with the orbital equations that would control the trajectory of the capsule in this mission from blast off to splash down. Computers at that time were large, bulky machines that were prone to glitches, so before completing the preflight checklist, John Glenn, the lead astronaut for the mission, asked engineers to “get the girl”. Katherine Johnson was called to complete the same equations that had been programmed into the computer by hand to verify them for correctness. John Glenn said, “If she says they’re good, then I’m ready to go.” The flight was a success!

Katherine continued her career with NASA for 30 years. When she is asked to name her greatest contribution to space exploration, she talks about the calculations that helped synch Project Apollo’s Lunar Lander with the moon-orbiting Command and Service Module. She also worked on the Space Shuttle and authored or coauthored 26 research reports. She retired in 1986. Since then, she has kept herself very busy. She sang in the choir of Carver Presbyterian Church for 50 years. She has been a member of Alpha Kappa Alpha, the first sorority established by and for African American women since college. She and her husband now have six grandchildren and eleven great-grandchildren. She encourages students to keep studying and work hard. President Barack Obama presented Johnson with the Presidential Medal of Freedom on November 24, 2015. She was honored to be a pioneering example of African-American women in STEM (Science Technology Engineering and Math).

On May 5, 2016, the Katherine G. Johnson Computational Research Facility was formally dedicated at Langley Research Center in Hampton, Virginia. It officially opened its doors on September 22, 2017. This event, which Johnson attended, also marked the 55th anniversary of astronaut Alan Shepard’s historic rocket launch and splashdown. During the event, Katherine was also honored to receive a Silver Snoopy award. This award is given by NASA to those who have made outstanding contributions to flight safety and mission success.

In 2016, Katherine was included in BBC's list of 100 influential women worldwide. She and other female African American mathematicians who worked at NASA were depicted **7:00** in the highly acclaimed film Hidden Figures which was released in December 2016. During the 89th Academy awards, she received a standing ovation from the audience. West Virginia State University recently announced plans for a STEM scholarship in honor of Johnson and a life-sized statue of her on campus. On May 12, 2018, she was awarded an honorary doctorate by the College of William and Mary. In 2018, Mattel announced a Barbie doll in the likeness of Katherine Johnson complete with a NASA identity badge.

Katherine Johnson celebrated her 100th birthday on August 26, 2018. And just in case you were wondering, she still loves to count!

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Listening

grades 5 & 6

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

UIL LISTENING CONTEST - GRADES 5-6
FALL/WINTER DISTRICT 2019-2020
TEST

"KATHERINE JOHNSON"

1. In what film released in 2016 was Katherine Johnson featured?
A. Women of NASA
B. Hidden Figures
C. The Theory of Everything
D. Computing Women
2. What satellite was launched by the Russians in 1957?
A. Challenger
B. Apollo
C. Sputnik
D. Glonass
3. Katherine Johnson was born in
A. Florida
B. West Virginia
C. Virginia
D. Texas
4. Why did Katherine's parents send her to high school at the Institute at West Virginia State College?
A. It was a better high school than the one in the town where they lived.
B. Her high school did not offer classes for students gifted in mathematics.
C. She was too old to attend a regular high school.
D. The school in her town did not offer high school classes for African Americans.
5. Geometry is a type of math that
A. uses shapes and angles
B. solves big problems using computers
C. uses models and algorithms
D. uses formulas and graphs
6. How old was Katherine when she enrolled as a Freshman in college? _____
7. What was special about W.W. Schieffelin Claytor?
A. He gave Katherine a graduate scholarship to West Virginia State University.
B. He was a chemical engineer who created new classes for her in college.
C. He took a chance and brought her into NASA before segregation occurred.
D. He was the third African American man to receive a Ph.D. in mathematics.
8. Who was the head of NACA when Katherine was hired?
A. Dorothy Vaughan
B. John Davis
C. Alan Shephard
D. Marion Greene

9. Why did Katherine drop out of graduate school?
- A. She wanted to take a job with NACA.
 - B. Her husband became too sick to work.
 - C. She wanted to have a family.
 - D. She wanted to follow a different plan of study.
10. Which of the following was not a job Katherine's father worked at during her childhood?
- A. Farmer
 - B. Teacher
 - C. Lumberman
 - D. Handyman
11. The Katherine G. Johnson Computational research Facility is located at
- A. Langley Research Center in Hampton, Virginia
 - B. Kennedy Space Center, Cape Canaveral, Florida
 - C. West Virginia State University, Morgantown, West Virginia
 - D. NASA Space Center, Houston, Texas
12. America's first human spaceflight was
- A. Challenger
 - B. Apollo 8
 - C. Freedom 7
 - D. Voyager 1
13. Which college/university awarded Katherine an honorary doctorate degree in May 12, 2018?
- A. West Virginia State University
 - B. College of William and Mary
 - C. Virginia State College
 - D. University of Houston
14. What is significant about the date September 22, 2017?
- A. It is the date Barack Obama awarded Katherine the medal of Freedom.
 - B. It is the 30th anniversary of Katherine's first job with NASA.
 - C. Mattel launched its Katherine Johnson Barbie doll.
 - D. It was the 55th anniversary of Alan Shepard's rocket launch and splashdown.
15. What is the name of the first sorority established by and for African-American women?
- A. Delta Kappa Delta
 - B. Kappa Delta Alpha
 - C. Alpha Kappa Alpha
 - D. Delta Alpha Kappa
16. How did Katherine's first husband die?
- A. stroke
 - B. heart attack
 - C. car accident
 - D. brain cancer

17. What did Katherine believe was her greatest achievement while working at NASA?
 - A. designing the mechanisms and working on the space shuttle
 - B. coauthoring the 26 reports for the Computational Research Facility
 - C. doing the calculations that allowed John Glen to step foot on the moon
 - D. synching Project Apollo's Lunar Lander with the moon-orbiting Command and Service Module.

18. When the United States attempted to send a manned spacecraft to the moon, Katherine's job was to
 - A. use geometry to determine the path to orbit the Earth and land on the moon.
 - B. program the computer to determine the trajectory of the rocket.
 - C. construct a worldwide communications network for the computers.
 - D. use geometry to solve problems the computers were unable to solve consistently.

True/False

19. In 1965, the United States decided to attempt to send a manned spacecraft to the moon.

20. In 1959, Katherine married James A. Goble who had been a second lieutenant in the army was a veteran of the Korean War.

21. Katherine graduated with a master's degree in 1937 and took a job teaching at a black public school in Marion, Virginia.

22. West Virginia State's president Dr. John W. Davis selected Katherine and two male students as the first black students to be offered spots at West Virginia University in Morgantown, West Virginia.

23. In the summer of 1953, Katherine worked with a large group of women who were called "computers" and worked in the Guidance and Navigation Department of the Langley Memorial Aeronautical Laboratory.

24. When Katherine was assigned to a project in the Maneuver Loads Branch of the Flight Research Division, she spent the next ten years analyzing data from test flights and worked on the investigation of the explosion of the space shuttle.

25. John Glenn refused to go on the first manned spaceflight to the moon until Katherine Johnson was called to complete the same equations that had been programmed into the computer by hand to verify them for correctness.

UIL LISTENING CONTEST - GRADES 5-6
FALL/WINTER DISTRICT 2019-2020

ANSWER KEY

"KATHERINE JOHNSON"

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

UIL LISTENING CONTEST - GRADES 5 & 6 SPRING DISTRICT 2019-2020

Contest Script- "THE HISTORY OF LEGOS"

What comes to mind when you hear the word LEGO? I don't know about you, but my mind immediately pictures small, colorful bricks that click together and allow me to build all kinds of cool things. In fact, these interlocking bricks are an icon in the toy world. Where did LEGOs come from? Let's look at the history of LEGOs.

LEGOs started out quite different from the plastic blocks we have today. In 1916, a young carpenter named Ole Kirk Christiansen who lived in Denmark turned his love of whittling and playing with wood into a business and opened his own shop. In his shop he created wooden toys, furniture, stepladders, and ironing boards. His business did well, but in 1924, his sons accidentally set a pile of wood chips in the shop on fire. The entire building, both the business and his family's home, was destroyed. Instead of giving up, Christiansen decided to build a larger workshop. Again, his business began to grow, but in 1929, the American stock market crash plunged the whole world into an economic depression.

1:00

Determined to continue, Christiansen and his staff worked hard and were able to keep the business going. Tragedy struck again in 1932 when his wife died. At this point, Christiansen had to downsize and laid off much of his staff. Overwhelmed with personal tragedy, Christiansen had to make a hard decision. Instead of making furniture and ironing boards which cost more to produce, he decided to use his wood to create inexpensive goods that might sell better than expensive ones. Among these items were cheap toys. It was a slow process. At first Christiansen even slid into bankruptcy, but he continued to push ahead. His son, Godtfred, began working in the business to help his father at the age of 12. After two years, Ole Kirk named his business Leg Godt, which in Danish means "play well." It was only later that it was discovered that in Latin the words mean "I put together." Soon his company became known simply as LEGO. In

1935, the company manufactured its first LEGO wooden duck and marketed Kirks "Sandgame" as his first construction toy.

2:00 As it turned out, Christiansen was a brilliant toymaker. His toys were well made because he refused to cut corners. He had models of cars, animals, and pull toys. His bestseller was the LEGO wooden duck whose beak opened and closed when it was pulled. In 1942 during World War 2, Denmark was occupied by Germany. Unfortunately, during this time, another fire burned Christiansen's livelihood when his entire factory once again burned to the ground. But this time, his business was good enough that he was able to bounce back. The product line grew to include not only the duck and Sandgame, but clothes hangers, a goat named Numskull Jack, a plastic ball for babies and some wooden blocks.

After World War 2 ended, however, many of the traditional products used to produce consumer goods weren't available. As a result, many manufacturers looked to plastic to create cheap alternatives. One invention that showed great promise was a plastic injection-molding machine in which melted plastic was forced into the cavity of a mold which allowed the plastic to be specifically shaped. However, due to the materials shortage, the government of Denmark banned the sale and use of the machine until **3:00** 1947.

Despite this ban, Christiansen bought the machine in 1946 and began to experiment with it for his toys. At the time, the machine cost 30,000 DKK. A DKK is a Danish Krone - the Danish currency. In 1947, he was finally allowed to use it for goods he could sell. By 1948, LEGO had grown to 50 employees. By 1949, LEGO was using this machine to produce about 200 different kinds of toys that were sold exclusively in Denmark. These included small plastic bricks which were the predecessors to the LEGO toys we know today. The first packages had four colors with bricks containing both four and eight studs. These bricks, known as the Automatic Binding Bricks, were a lot like a modern LEGO brick, and according to LEGO, the fact that its name was English, not Danish, was in honor of the Allied forces that liberated Denmark and put an end to World War 2. This

toy was inspired by a toy called Self-Locking Bricks which were built by another company, **4:00** Kiddicraft. Kiddicraft was a British company which had patented their product in the United Kingdom in 1939. The bricks were self-locking like the ones we know today. After obtaining permission to create their own bricks, Christensen and his son Godtfred began selling their own version of plastic bricks in 1949. At that time, they were not LEGO's most popular toys, but they became more and more popular as the years passed. As a side note, although LEGO got permission from Kiddicraft at that time, in 1981, LEGO formally bought the rights to Kiddicraft bricks from the descendants of the original inventor.

In 1952, the automatic binding bricks were renamed LEGO bricks. Godtfred came up with the idea of developing a "system of play". The overall principle of the system of play was that all blocks should interlock and be interrelated. The hope was that this would increase both the imaginative potential of children as well as boost sales. In 1957, the interlocking principle of LEGO bricks was born. On January 28, 1958, the stud-and-coupling system was patented. This system creates stability to creations that are built with the pieces. From that time forward, all LEGO blocks produced interlocked with any other LEGO block or product. In 1958, Ole Kirk Christiansen passed away leaving his son Godtfred as the head of the LEGO company. **5:00** Sadly, just five years after launching its System of Play, the entire inventory of wooden toys was destroyed in yet another fire! At this point, LEGO decided to ditch wood for good and just use plastic.

By the early 1960s, LEGO had gone international. They had sales in Sweden, Switzerland, the United Kingdom, France, Belgium, Germany, and Lebanon. LEGO sets began to be sold in 1964. These sets included all the parts and instructions to build specific models. In 1969, the DUPLO series of bigger blocks for smaller hands, was introduced for children ages 5 and under. In 1973, LEGO toys finally made their way to the United States.

The first LEGOLAND opened its gates on June 7, 1968. In its first season it attracted 625,000 visitors. In fact, over 3000 people visited on the first day alone. Today Merlin

6:00 Entertainments operates seven LEGOLAND amusement parks including parks in England, Germany, California, Florida, Malaysia, Dubai and China. There are also LEGOLAND Discovery Centers in the United States, Japan, Germany, and the United Kingdom. On July 13, 2005, 70% of the stock for the parks was sold for \$460 million to the Blackstone Group of New York leaving the remaining 30% to be held by LEGO.

On May 2011, the Space Shuttle Endeavour carried 13 LEGO kits to the International Space Station. In this program, NASA sent special LEGO kits which included model satellites, orbiters, and even a scale model of the space station into orbit. Students were able to watch as crew members assembled the kits and used the bricks to demonstrate science concepts. They also studied how LEGOs worked differently in the microgravity of space.

In May 2013, the largest LEGO model ever created was displayed in New York City. The model was a scale model of an X-wing fighter and was made of over 5 million bricks.

In February 2014, *The LEGO Movie* was released by Warner Brothers. This feature film was based on LEGO toys and featured Chris Pratt in the lead role. A contest was held for contestants to submit designs for vehicles to be used in the film. A spin-off entitled *The LEGO Batman Movie* was released in the US in February 2017.

7:00 By 2015, LEGO toys were sold in more than 140 countries. The company has passed from father to son and is now owned by Kjeld Kirk Kristiansen, a grandchild of the original founder. Billund, the original location, is now a tourist destination. LEGO sets are at the top of the list of the world's most popular toys and have been named Toy of the Century twice. None of this would have happened without the determination of one man who refused to let fire destroy his dream.

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Listening
grades 5 & 6

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

UIL LISTENING CONTEST - GRADES 5-6
SPRING District 2019-2020
TEST

"The History of Legos"

1. In what year did Ole Kirk Christenson open his first shop?
A. 1910
B. 1924
C. 1916
D. 1929
2. What is the difference between Legos and Duplos?
A. shape of bricks
B. size of bricks
C. colors available for purchase
D. number of connectors
3. What was the original name for LEGO bricks?
A. automatic binding bricks
B. interlocking colored bricks
C. connecting system of play
D. individual interlocking blocks
4. What is the benefit of the stud-and-coupling system?
A. It gives stability.
B. It creates universal interlock.
C. It allows for versatility.
D. It creates a system of interchangeability.
5. In what city was the largest LEGO model ever made displayed?
A. Berlin
B. Denmark
C. London
D. New York City
6. Who came up with the idea of developing a "system of play"?
A. Ole Kirk Christenson
B. Kjeld Kirk Kristiansen
C. Godtfred Christenson
D. Chris Kristiansen
7. What is DKK?
A. a kind of plastic
B. a type of currency
C. an environmental toxin
D. a law prohibiting using plastics

8. Self-locking bricks which were very similar to LEGOS had been patented in 1939 by a Company from
- A. Britain
 - B. Denmark
 - C. Germany
 - D. France
9. What caused the LEGO company to ditch wood and make the toys entirely from plastic?
- A. the invention of a new machine
 - B. another fire
 - C. wood was cost prohibitive
 - D. plastic was easier to produce
10. The word LEGO comes from a Danish word meaning
- A. put together
 - B. building blocks
 - C. play well
 - D. share together
11. How many times did Ole Kirk Christenson suffer loss from a devastating fire? ____
12. What made LEGO sets different from previously sold LEGOs?
- A. They contained instructions and materials for a specific construction.
 - B. They utilized a different locking mechanism than before.
 - C. They allowed for interchangeable interlocking parts from different packages.
 - D. They were created to only work for the construction they were sold for.
13. What company now operates LEGOLAND amusement parks?
- A. Warner Brothers
 - B. Merlin Entertainment
 - C. Blackmore Enterprises
 - D. Christiansen LLC
14. Which shuttle carried LEGOs into space?
- A. Challenger
 - B. Columbia
 - C. Endeavor
 - D. Discovery
15. Which of the following were NOT said to be sold in Ole Kirk Christenson's original store?
- A. wooden toys
 - B. ironing boards
 - C. ladders
 - D. walking canes
16. What was special about the best-selling toy duck that Christenson built?
- A. The wings flapped when it was pulled along the ground.
 - B. It sounded like a duck quacking when it was pulled.
 - C. The beak opened and closed when it was pulled.
 - D. It could fly when it was wound by pulling it on the ground.

17. What was the cause of the first devastating fire Christenson suffered?
 - A. His sons set wood chips on fire in his shop.
 - B. German forces set fire to the shop during World War 2.
 - C. An electrical fire caused his factory to burn to the ground.
 - D. Sparks from a fireplace set wooden scraps ablaze in his warehouse.
18. The first LEGOLAND opened its gates on
 - A. July 13, 2005
 - B. June 7, 1968
 - C. January 28, 1969
 - D. May 11, 2001

True/False

19. The first packages of the bricks that were the predecessors to LEGOS had four colors with bricks containing both four and eight studs.
20. The name LEGO was Danish in honor of the Allied forces that liberated Denmark and put an end to World War 2.
21. After World War 2, LEGO focused exclusively on creating plastic brick interlocking toys.
22. After losing everything in a fire in 1924, the economic depression in 1929, and the death of his wife in 1932, Christiansen decided to use his wood to create inexpensive goods that might sell better than expensive ones including cheap toys.
23. When LEGOLAND opened, its first season attracted 725,000 visitors. In fact, over 4,000 people visited on the first day alone.
24. By 2015, LEGO toys were sold in more than 140 countries.
25. LEGO sets are at the top of the list of the world's most popular toys and have been named Toy of the Century twice.

UIL LISTENING CONTEST - GRADES 5-6
SPRING DISTRICT 2019-2020

ANSWER KEY

"The History of Legos"

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

FOR GRADER USE ONLY

Score Test Below:

_____ Initials _____

_____ Initials _____

Papers contending to place:

_____ Initials _____



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

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

Circle Grade Level: 5 6 7 8

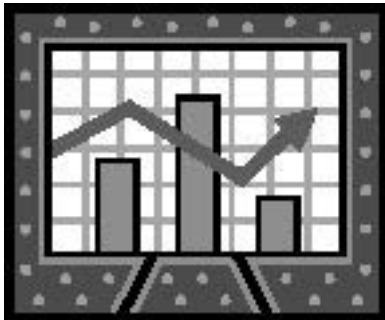
- | | | | | | | | | | | | |
|-------|---|---|---|-------|---|---|-------|-------|---|---|---|
| 1. A | B | C | D | 26. | T | F | 51. A | B | C | D | |
| 2. A | B | C | D | 27. | T | F | 52. A | B | C | D | |
| 3. A | B | C | D | 28. | T | F | 53. A | B | C | D | |
| 4. A | B | C | D | 29. | T | F | 54.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

INVITATIONAL 2019-2020

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

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

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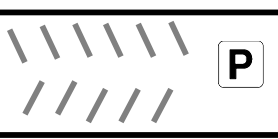
Asia Political Relief Map

- Which town of over 1,000,000 people is the furthest west?
 - Aden, Yemen
 - Macau(o), China
 - Chennai, India
 - Medan, Indonesia
- Which of the following countries does not have a border on the Arabian Sea?
 - India
 - Saudi Arabia
 - Oman
 - Pakistan
- The International Date Line Crosses what body of water?
 - The Pacific Ocean
 - The Indian Ocean
 - The South China Sea
 - None of the above
- What capital can be found at 79.8612° E?
 - Astana, Kazakhstan
 - Kanpur, India
 - Istanbul, Turkey
 - Colombo, Sri Lanka
- The Taklimakan Desert is in what country?
 - Iran
 - Saudi Arabia
 - Kazakhstan
 - China
- Which of the following bodies of water forms a border with another continent?
 - Persian Gulf
 - Black Sea
 - Yellow Sea
 - Bay of Bengal
- How far is it from the largest city in the country of Kazakhstan to the capital of the country?
 - About 100 miles
 - About 300 miles
 - About 400 miles
 - About 600 miles
- The Volcano Islands is a territory of what country?
 - China
 - Japan
 - Indonesia
 - Russia
- Which line of latitude runs through the country of Bangladesh?
 - The Equator
 - The Tropic of Cancer
 - The Tropic of Capricorn
 - None
- Half an inch equals how many miles?
 - 340 miles
 - 680 miles
 - 750 miles
 - 1,000 miles
- What do the lines of small black dots represent?
 - Latitude lines
 - Longitude lines
 - International Boundary
 - Disputed Boundary
- The Lena River runs through which of the following countries?
 - China
 - India
 - Iran
 - None of the above
- Which of the following cities has a population under 1,000,000?
 - Padang, Indonesia
 - Omsk, Russia
 - Kyoto, Japan
 - Mumbai, India
- Which of the following countries does The Equator run through?
 - Yemen
 - Indonesia
 - Vietnam
 - Bangladesh
- Which of the following is actually a lake?
 - South China Sea
 - Arabian Sea
 - Caspian Sea
 - Yellow Sea



Downtown 10 Miles

Shell Beach 2 miles



Entrance

Dolphin Bay



Crustacean Corner

Penguin House

Jellyfish Display

Underwater Mermaid Show

Play Ground Area

Main Gift Shop

Shark Reef

String Ray Petting Zoo

Octopus Garden

Information and Administration

Tropical Waters

Services

- Restrooms
- Water Fountain
- Restaurant
- Parking
- First Aid
- Information
- Exit
- ATM
- Picnic Area
- Gift Shop

Hours:
Open Daily
10 - 8

South Coast Aquarium



South Coast Aquarium

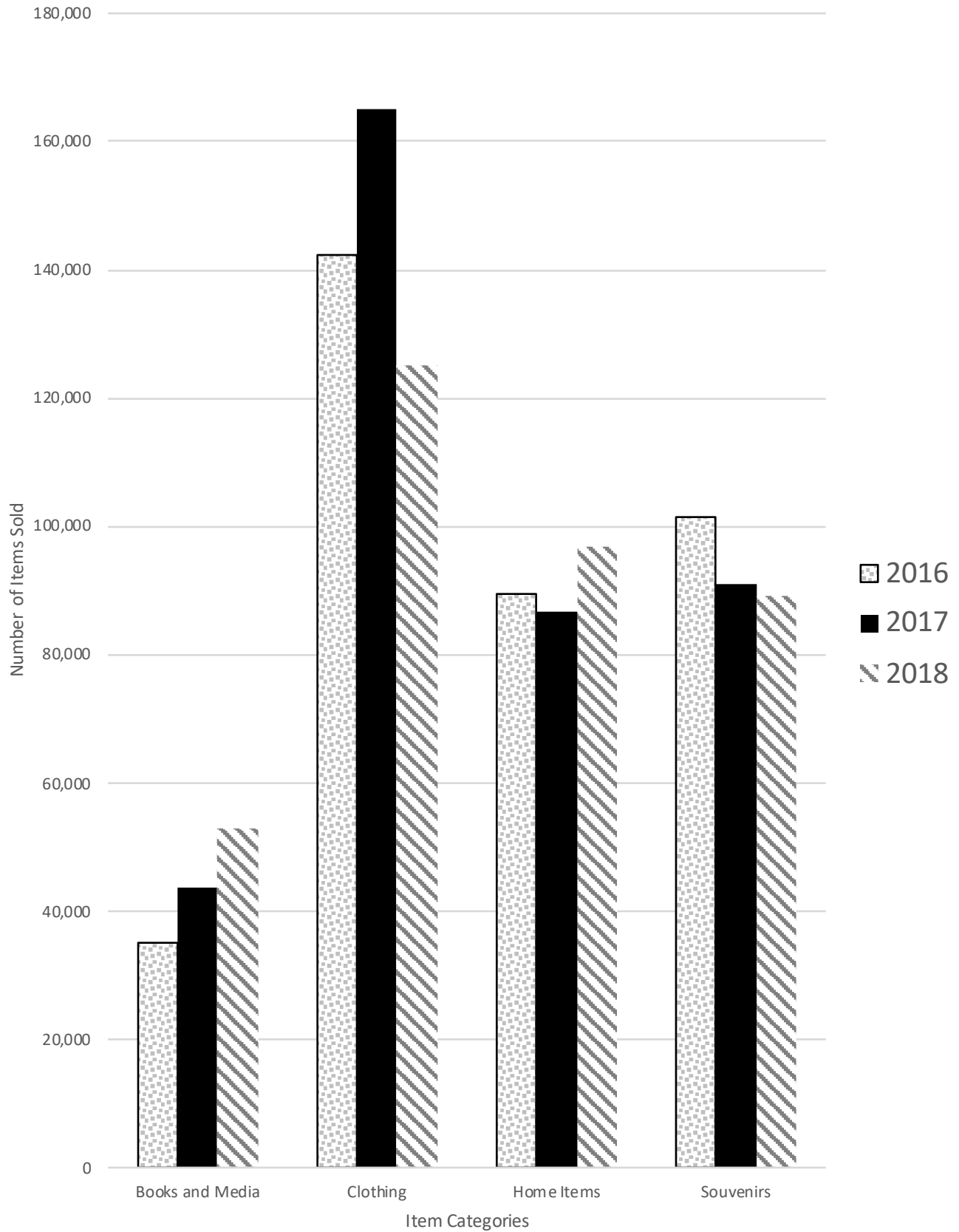
16. What direction would you need to go from Shell Beach to arrive at the aquarium?
- East
 - West
 - North
 - South
17. How many of the areas/attractions host restaurants?
- 1
 - 2
 - 3
 - 4
18. What scale is indicated on the map?
- 1 inch equals $\frac{1}{4}$ mile
 - 1 inch equals $\frac{1}{2}$ mile
 - 1 inch equals 1 mile
 - Not indicated
19. Which of the following attractions has a first aid station?
- Jellyfish Display
 - Dolphin Bay
 - Underwater Mermaid Show
 - Shark Reef
20. How many parking areas are indicated on the map?
- 1
 - 2
 - 3
 - 0

21. How many gift shops are there?
- 2
 - 3
 - 4
 - 5
22. How far is the aquarium from downtown?
- 2 miles
 - 5 miles
 - 10 miles
 - 20 miles
23. Which animal attraction is the furthest west?
- Penguin House
 - Sting Ray Petting Zoo
 - Jellyfish Display
 - Dolphin Bay
24. How many hours is the aquarium open on a daily basis?
- 6
 - 8
 - 10
 - 12
25. How many types of services are indicated on the map?
- 4
 - 7
 - 10
 - 13

TRUE/FALSE

26. Every attraction includes at least one service.
27. The entrance is in the southwest corner of the grounds.
28. Downtown is south of Shell Beach.
29. Octopus Garden is east of Shark Reef.
30. The aquarium is closed on Sundays.

Gift Shop Item Sales By Year



Gift Shop Item Sales by Year

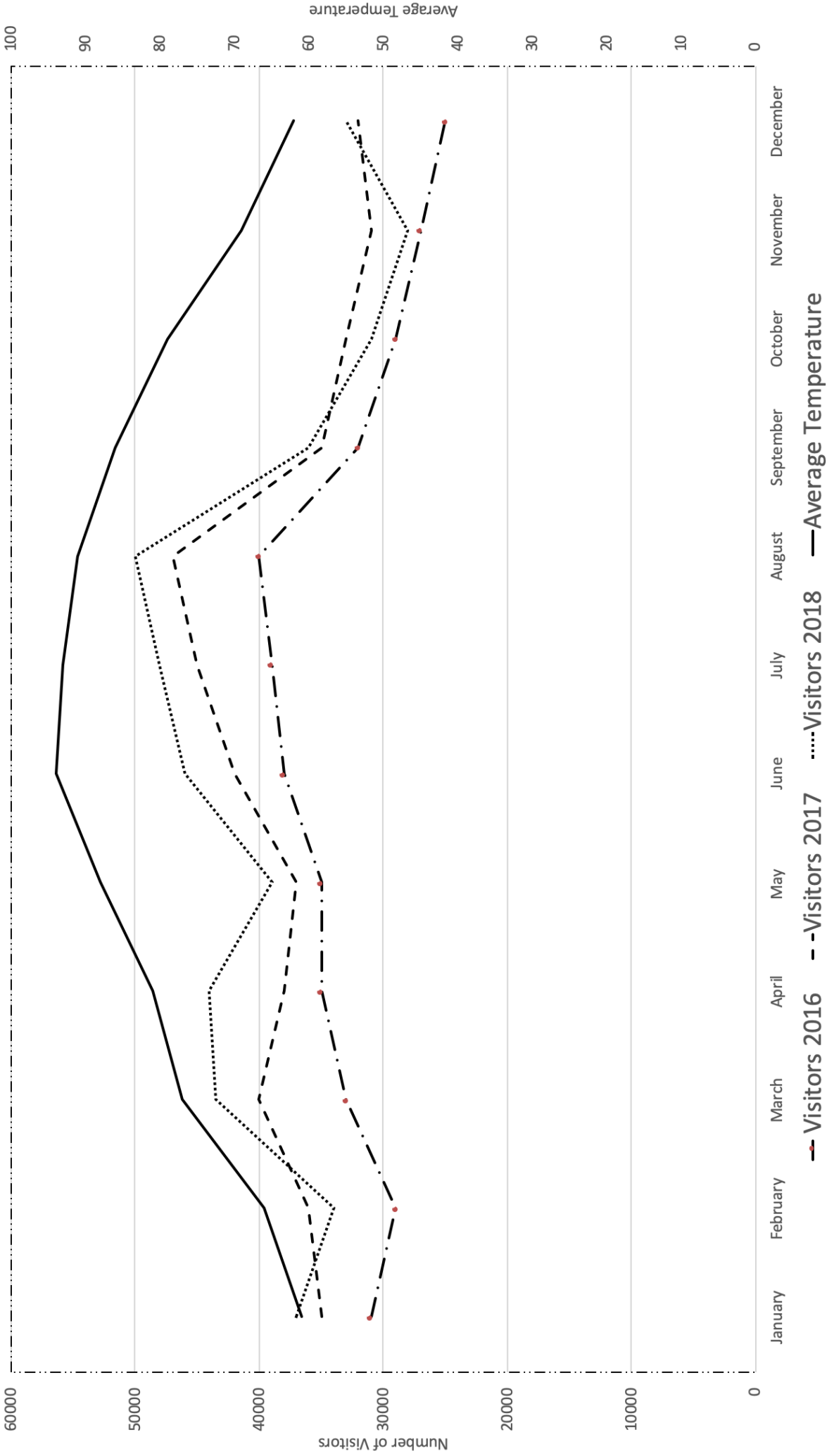
31. Which category had the most sales in 2016?
- Books and media
 - Clothing
 - Home Items
 - Souvenirs
32. How many categories are displayed on the graph?
- 4
 - 8
 - 12
 - 16
33. How many individual items (such as t-shirts, shoes, shorts, etc.) are included within the clothing category?
- 5
 - 10
 - 15
 - Not indicated
34. What year did Books and Media have the highest sales?
- 2018
 - 2017
 - 2016
 - None of the above
35. Which category had the highest number of sales for all years combined?
- Books and media
 - Clothing
 - Home Items
 - Souvenirs
36. What does the solid black bar represent?
- Books and media
 - Clothing
 - 2016
 - 2017
37. Which category had a decrease in sales every year?
- Books and media
 - Clothing
 - Home Items
 - Souvenirs
38. Which category had the single greatest increase in sales in one year?
- Books and media
 - Clothing
 - Home Items
 - Souvenirs
39. In how many years did home items outsell souvenirs?
- 0
 - 1
 - 2
 - 3
40. How many items in the clothing category were sold in 2016?
- About 123,000
 - About 142,000
 - About 42,000
 - About 23,000
- TRUE/FALSE**
41. 2017 saw the highest amount of sales for clothing.
42. Books and Media always had the fewest amount of sales.
43. Books and Media is the only category that saw an increase in sales every year.
44. The graph indicates the month that the highest yearly sales occur.
45. Clothing sales go up every year.

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Australia and Its Neighbors Land Cover and Elevation Maps

46. Rainforest can be found in what area of Australia?
- Eastern coast
 - Western coast
 - Middle of the country
 - Not found in Australia
47. How far is it from Brisbane to Sydney?
- About 300 miles
 - About 450 miles
 - About 600 miles
 - About 750 miles
48. What does the Wallace Line indicate?
- Areas of cultural influence boundary
 - A disputed international boundary
 - The continental boundary
 - Relations of animal species
49. What is the elevation of Lake Eyre?
- Below sea level
 - 500 to 1,000 feet
 - 1,000 to 2,000 feet
 - 2,000 to 5,000 feet
50. What does the blue line with white dots represent?
- Areas of cultural influence boundary
 - A disputed international boundary
 - The continental boundary
 - Relations of animal species
51. Wellington is the capital of what country?
- Australia
 - Indonesia
 - New Zealand
 - Vanuatu
52. How much of the continent does the outback cover?
- 10%
 - 20%
 - 40%
 - 80%
53. The land cover in New Guinea is mostly of what type?
- Grassland
 - Cropland
 - Tropical rain forest
 - Broadleaf forest
54. The Maoke Mountains can be found in what country?
- Australia
 - Indonesia
 - New Zealand
 - Vanuatu
55. What is the elevation of the highest mountain peak on the continent?
- 2,000 to 5,000 feet
 - 5,000 to 10,000 feet
 - 1,500 to 3,000 meters
 - Over 3,000 meters
56. The cross section on the elevation map covers how many degrees of latitude?
- 7 degrees
 - 23 degrees
 - 90 degrees
 - About 110 degrees
57. Shark Bay is located on what Australian coast?
- Northern
 - Southern
 - Eastern
 - Western
58. What does the pink line across the island of New Guinea indicate?
- Areas of cultural influence boundary
 - An international boundary
 - The continental boundary
 - Relations of animal species
59. What is the scale of the cross-section on the elevation map?
- One inch equals 470 miles
 - One inch equals 565 miles
 - One inch equals 358 miles
 - Not indicated
60. Tasmania is off the southern coast of what country?
- Australia
 - Indonesia
 - New Zealand
 - Vanuatu

Aquarium Visitor Information By Month



Aquarium Visitor Information by Month

61. What does the solid black line represent?
- Average temperature
 - 2016
 - 2017
 - 2018
62. How many years are represented on the graph?
- 3
 - 4
 - 12
 - 48
63. What year had the lowest attendance in every month?
- 2016
 - 2017
 - 2018
 - None
64. What single month had the highest attendance?
- June, 2017
 - July, 2018
 - August, 2018
 - December, 2018
65. How many times did attendance in 2018 surpass the same month in 2017?
- 0
 - 5
 - 7
 - 9
66. Which of the following months had the highest attendance for all three years?
- June
 - July
 - August
 - September
67. What does the x axis represent?
- Average Temperature
 - Number of Visitors
 - Month
 - Average visitor age
68. In 2016, which month had the highest jump in number of visitors compared to the previous month?
- January
 - February
 - March
 - April
69. How many times did monthly visitors pass the 60,000 mark?
- 0
 - 2
 - 3
 - 4
70. Which of the following months had the highest average temperature?
- February
 - March
 - September
 - October
- TRUE/FALSE**
71. As the temperature rises attendance generally goes up.
72. In 2018, November had the fewest visitors.
73. 2016 saw the lowest number of total visitors.
74. All the lines on the graph represent the same number range (0 to 60,000).
75. The graph suggests what days of the week that the Aquarium gets the most visitors.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2019-2020
5/6 Invitational
Answer Key

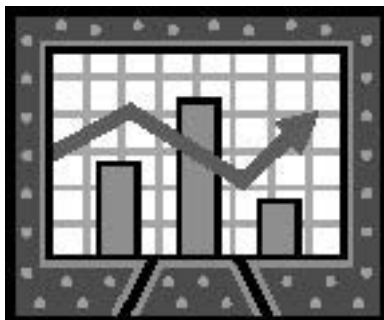
1. C	26. F	51. C
2. B	27. T	52. D
3. A	28. F	53. C
4. D	29. T	54. B
5. D	30. F	55. D
6. B	31. B	56. A
7. D	32. A	57. D
8. B	33. D	58. B
9. B	34. A	59. A
10. A	35. B	60. A
11. C	36. D	61. A
12. D	37. D	62. A
13. A	38. B	63. A
14. B	39. B	64. C
15. C	40. B	65. D
16. A	41. T	66. C
17. C	42. T	67. C
18.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

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

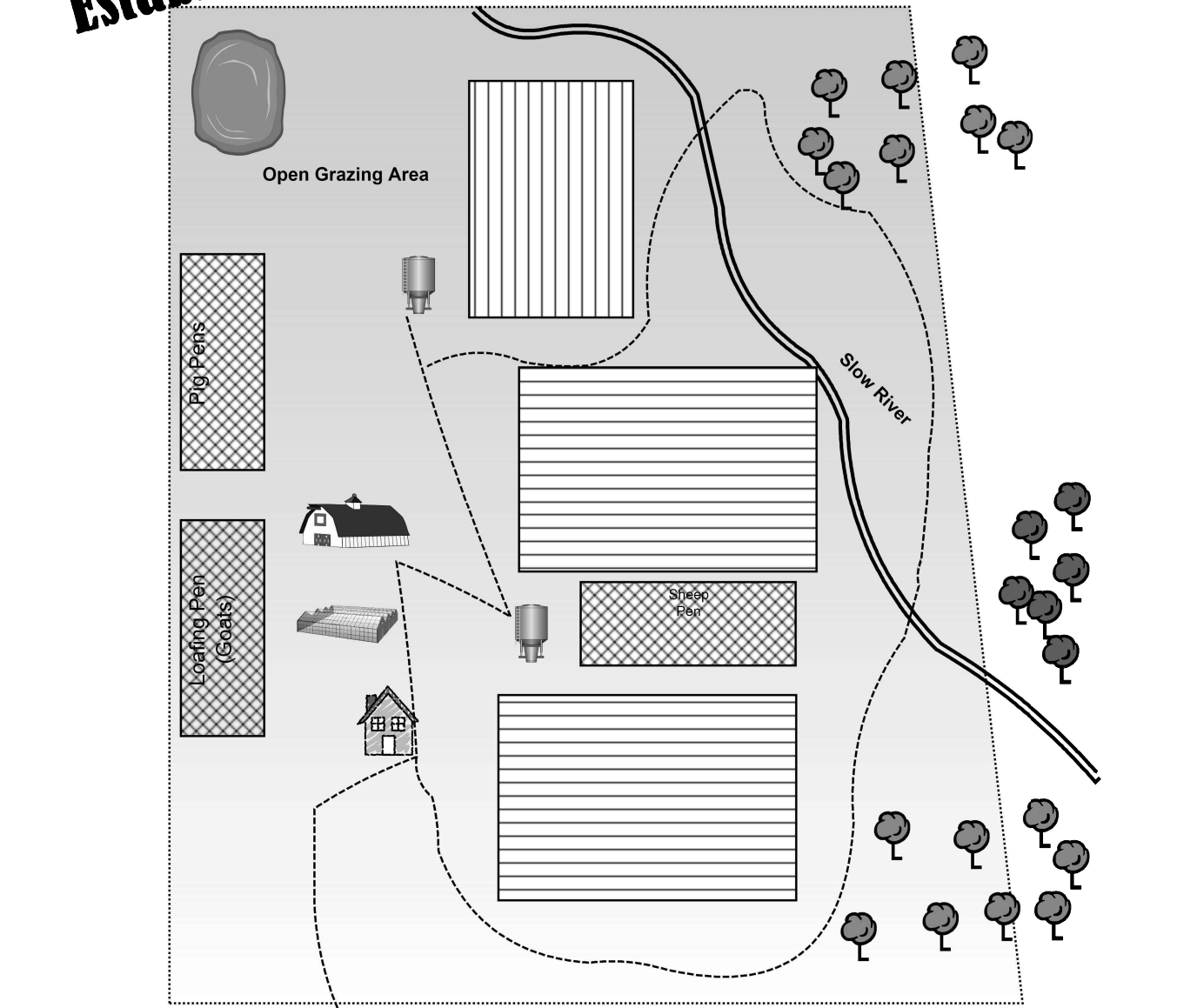
**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

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Africa Political Relief Map

1. What body of water forms part of the southern border of Uganda?
 - a. Indian Ocean
 - b. Gulf of Guinea
 - c. Lake Victoria
 - d. Gulf of Sidra
2. Two centimeters equal how many kilometers on the map?
 - a. 730
 - b. 1460
 - c. 463
 - d. 926
3. Which of the following capitals is located north of the equator?
 - a. Luanda, Angola
 - b. Rabat, Morocco
 - c. Cape Town, South Africa
 - d. Nairobi, Kenya
4. The Strait of Gibraltar separates Africa from what other continent?
 - a. Europe
 - b. Asia
 - c. Antarctica
 - d. Australia and Oceania
5. The Niger River does not flow through which of the following countries?
 - a. Mali
 - b. Guinea
 - c. Nigeria
 - d. Algeria
6. Prince Edward Island is a territory of which of the following countries?
 - a. South Africa
 - b. Somalia
 - c. United Kingdom
 - d. Spain
7. How far is it from the capital of Tunisia to the capital of Libya?
 - a. About 100 miles
 - b. About 300 miles
 - c. About 400 miles
 - d. About 600 miles
8. Which of the following cities has a population over 500,000?
 - a. Ibadan, Nigeria
 - b. Mbeya, Tanzania
 - c. Lubango, Angola
 - d. None of the above
9. Which of the following is represented by a lettering style?
 - a. Ocean
 - b. Continent
 - c. Country
 - d. All of the above
10. What do the solid black lines that run horizontally across the map represent?
 - a. Longitude
 - b. Latitude
 - c. International Boundaries
 - d. Continental Boundaries
11. The Atlas Mountains are located near what coast?
 - a. Southeastern
 - b. Southwestern
 - c. Northeastern
 - d. Northwestern
12. The Nile River flows into which sea?
 - a. Lake Victoria
 - b. Mediterranean Sea
 - c. The Red Sea
 - d. The Black Sea
13. Which of the following capitals is on the Gulf of Guinea?
 - a. Malabo, Equatorial Guinea
 - b. Lagos, Nigeria
 - c. Douala, Cameroon
 - d. All of the above
14. Which of the following are north of the Tropic of Capricorn?
 - a. Port Elizabeth, South Africa
 - b. The capital of Botswana
 - c. The Gulf of Aden
 - d. 35 degrees south
15. Which country is the largest by area?
 - a. Algeria
 - b. Sudan
 - c. South Africa
 - d. Mali

Travis Farm Sonnet, Texas Establish 1879



I43

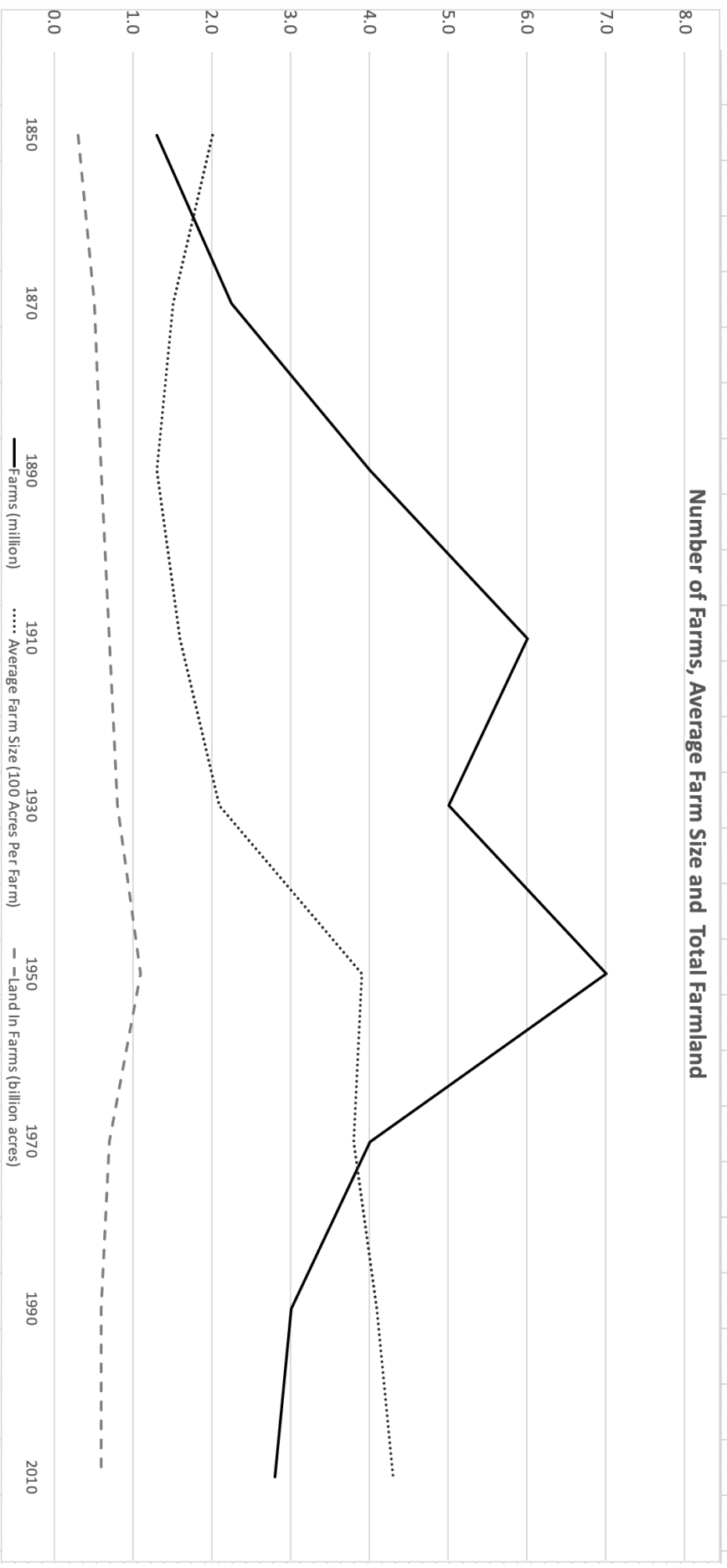
I72 (Center City 10 Miles)

LEGEND	
Farm Boundary
Dirt Road	- - - -
Highway	====
River	~~~~
Green House	
Grain Silo	
Animal Pen	
Corn Field	
Apple Orchard	
Peach Orchard	
Farm House	
Barn	

Travis Farm Map

16. How many grain silos tanks are indicated on the map?
- 1
 - 2
 - 3
 - 4
17. What is the scale of the map?
- 1 inch equals $\frac{1}{2}$ mile
 - 1 inch equals 1 mile
 - 1 inch equals 2 miles
 - Not indicated
18. Where on the farm is the loafing pen located?
- East
 - West
 - North
 - South
19. What does the double black line indicate?
- Highway
 - Farm Boundary
 - River
 - Dirt Road
20. How far is it to Center City from the farm?
- 2 miles
 - 5 miles
 - 10 miles
 - 20 miles
21. What kind of animal is not kept on the farm?
- Pigs
 - Goats
 - Sheep
 - Cows
22. What direction would you head from Center City to get to the farm?
- Southeast
 - Southwest
 - Northeast
 - Northwest
23. Which is located immediately north of the sheep pen?
- Water Tank
 - Farm House
 - Barn
 - Corn Field
24. How many types of orchards are shown on the map?
- 1
 - 2
 - 3
 - 4
25. What is grown in the greenhouse?
- Herbs
 - Flowers
 - Corn
 - Not indicated
- TRUE/FALSE**
26. The Travis Farm has apple and peach orchards.
27. The farm was established in 1789.
28. The farm grows three types of crops.
29. The dirt roads inside the farm crosses the Slow River twice.
30. The farm is north of I43.

Number of Farms, Average Farm Size and Total Farmland



Number of Farms, Average Farm Size and Total Farmland

31. What does the y axis represent?
- Total number farms
 - Average farm size
 - Total land used in farms
 - All of the above
32. What does the solid black line represent?
- Total number of farms
 - Average farm size
 - Total land used in farms
 - The year
33. In what year did the number of acres used for farming peak?
- 2010
 - 1950
 - 1910
 - 1850
34. What year saw the total number of farms decrease the most when compared to the previous data point?
- 1930
 - 1970
 - 1990
 - 2010
35. What span of time is represented on the y axis?
- 160 years
 - 100 years
 - 150 years
 - None of the above
36. What year saw the highest average size of farms?
- 1930
 - 1970
 - 1990
 - 2010
37. Which category is measured in billions?
- Total number farms
 - Average farm size
 - Total land in farms
 - All of the above
38. Since 1930, which category had the steadiest increase?
- Total number farms
 - Average farm size
 - Total land used in farms
 - Impossible to determine
39. How many data points are displayed on the x axis?
- 9
 - 7
 - 3
 - 160
40. How many farms were there in 1870?
- About 2 million
 - About 2.5 million
 - About 2.75 million
 - About 3 million
- TRUE/FALSE**
41. Average farm size and number of farms always move in the opposite direction.
42. From the year the graph begins to where it ends, every category saw an increase.
43. Average farm size increased every year since 1910.
44. The peak in all three categories was in 1950.
45. Land in farms has changed the least over the time covered in the graph.

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Europe: Precipitation, Climate and Land Use Maps

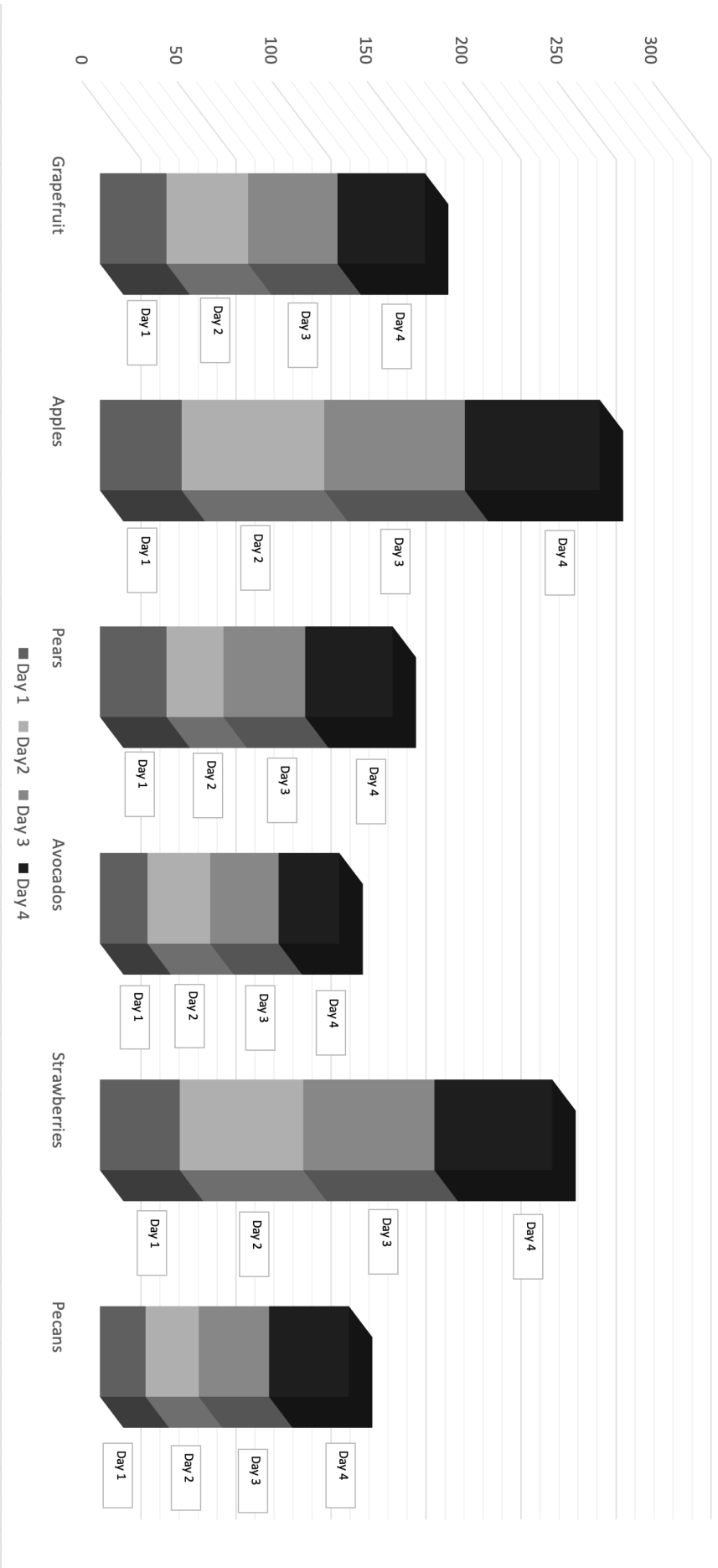
46. Which of the following is not a widespread economic use of land in Spain?
- Urban
 - Commercial farming
 - Subsistence farming
 - Ranching or herding
47. Which of the following countries has large areas of no widespread economic use?
- Sweden
 - Russia
 - Norway
 - Greece
48. Which of the following climate types can be found north of the Arctic Circle?
- Mediterranean
 - Marine
 - Cool Summer
 - None of the above
49. What is the scale of the Land Use Map?
- One inch equals 470 miles
 - One inch equals 565 miles
 - One inch equals 358 miles
 - Not indicated
50. What city can be found at 50.4501° N, 30.5234° E?
- Berlin, Germany
 - Kiev, Ukraine
 - Madrid, Spain
 - Rome, Italy
51. The Atlantic Ocean is off the west coast of which of the following countries?
- France
 - Hungary
 - Turkey
 - Greece

52. Which of the following countries has areas that receive only 10 to 20 inches of rain per year?
- Germany
 - Netherlands
 - Austria
 - Finland
53. Subsistence farming occurs in what area of Iceland?
- North
 - South
 - East
 - West
54. Steppe can mainly be found in what area of Europe?
- Southeast
 - Southwest
 - Northeast
 - Northwest

TRUE/FALSE

55. Seven types of economic land use are indicated on the Climate map.
56. All tundra is located north of the Arctic Circle.
57. The climate type in Belgium is Marine.
58. Milan is located in an area of urban land use.
59. Steppe climates can be found in Spain.
60. Precipitation amounts in Spain vary from 10 to 20 inches per year to over 80 per year.

Farmer's Market Sales In Pounds



Farmer's Market Sales in Pounds

61. What does the darkest solid on the column represent?
- Pounds
 - Dollars
 - Day 2
 - Day 4
62. What period of time is represented on the graph?
- 4 days
 - 1 weekend
 - 4 weekends
 - Not indicated
63. Which item had the highest total sales for the time represented on the graph?
- Grapefruit
 - Apples
 - Strawberries
 - Pecans
64. What day had the lowest total of strawberries sold?
- Day 1
 - Day 2
 - Day 3
 - Day 4
65. Which item had the lowest sales on Day 2?
- Pears
 - Avocados
 - Strawberries
 - Pecans
66. Which item showed an increase in sale for every day listed?
- Grapefruit
 - Avocados
 - Strawberries
 - Pecans

67. What do the numbers on the y axis represent?
- Day
 - Sales in dollars
 - Sales in pounds
 - Daily visitors

68. How many items had total sales over 150?
- 0
 - 2
 - 3
 - 4

69. On how many days did pears outsell avocados?
- 0
 - 2
 - 3
 - 4

70. How many pounds of pecans were sold on Day 2?
- About 20
 - About 30
 - About 40
 - About 50

TRUE/FALSE

71. All items had the least number of sales on day 1.
72. Strawberries sold more than grapefruits on every day.
73. Apples had the highest single day sales.
74. Avocados had the smallest day 4 sales.
75. The graph shows that apples made the most money during the time indicated on the graph.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2019-2020
5/6 Fall District
Answer Key

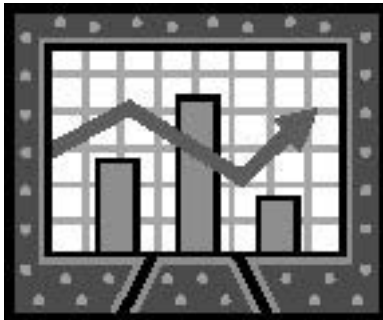
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9. D	34. B	59. T
10. B	35. D	60. F
11. D	36. D	61. D
12. B	37. C	62. A
13. A	38. B	63. B
14. C	39. A	64. A
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17. D	42. T	67. C
18. B	43. F	68. C
19. C	44. F	69. C
20. C	45. T	70. B
21. D	46. C	71. F
22. C	47. C	72. T
23. D	48. B	73. T
24. B	49. D	74. T
25. D	50. B	75. F

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Maps, Graphs & Charts

grades 5 & 6

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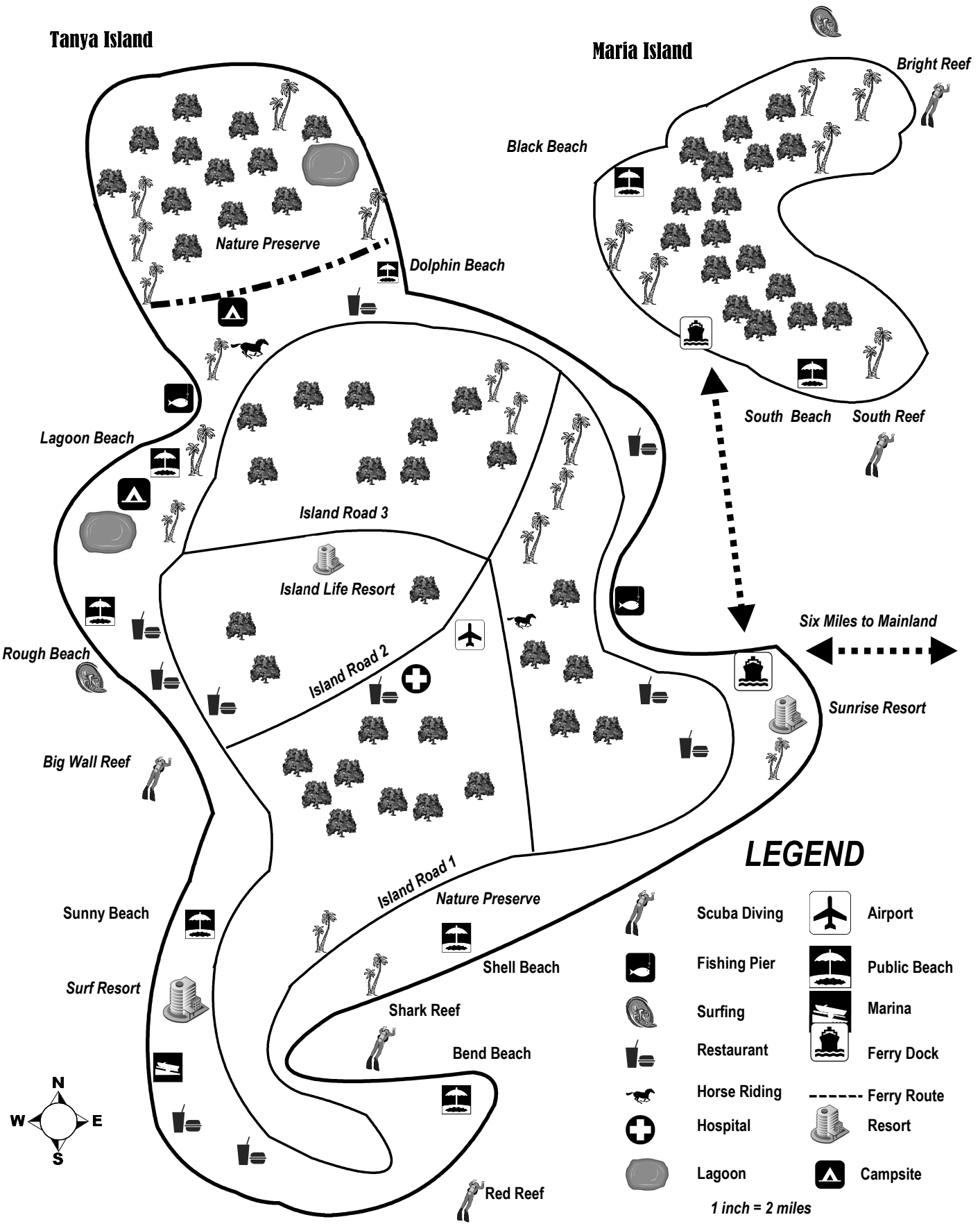
South America Political Relief Map

- How many country capitals are located on the shores of Rio de la Plata?
 - 0
 - 1
 - 2
 - 3
- What city of over 1,000,000 people can be found at about 30° S?
 - Santa Maria, Brazil
 - Porto Alegre, Brazil
 - La Serena, Chile
 - Medellin, Columbia
- Why are the countries in the northwest corner of the map, like Belize and El Salvador, all filled in with the same color?
 - They have a single governmental body
 - They belong to a different continent
 - They have the same land cover
 - None of the above
- The Parana River forms the border between Paraguay and what other country?
 - Argentina
 - Peru
 - Guyana
 - Ecuador
- How far is it from the city of Trujillo to the country's capital?
 - About 200 miles
 - About 300 miles
 - About 400 miles
 - About 500 miles
- Juan Fernandez Island is a territory of what country?
 - Brazil
 - Venezuela
 - Peru
 - Chile
- The Tropic of Cancer crosses which of the following countries?
 - Argentina
 - Ecuador
 - Suriname
 - None of the above
- Which of the following cities is the largest?
 - La Serena, Chile
 - Cusco, Peru
 - Salvador, Brazil
 - Salto, Uruguay
- The Andes Mountains are in what part of the continent?
 - North
 - South
 - East
 - West
- What does a double line across a river represent?
 - Waterfalls
 - Dams
 - Canals
 - None of the above
- The Strait of Magellan runs through which of the following countries?
 - Brazil
 - Colombia
 - Bolivia
 - Chile
- The water from Lake Titicaca flows down a river into what other body of water?
 - Scotia Sea
 - Atlantic Ocean
 - Lake Poopo
 - Patos Lagoon
- Which countries capital is closest to the equator?
 - Suriname
 - Bolivia
 - Brazil
 - Uruguay
- Which of the following rivers is not connected to the Amazon River?
 - Negro River
 - Purus River
 - Salado River
 - None of the above
- How many cities of over 1,000,000 are in Guyana?
 - 0
 - 1
 - 2
 - 3

Two Sisters Islands

Tanya Island

Maria Island



LEGEND

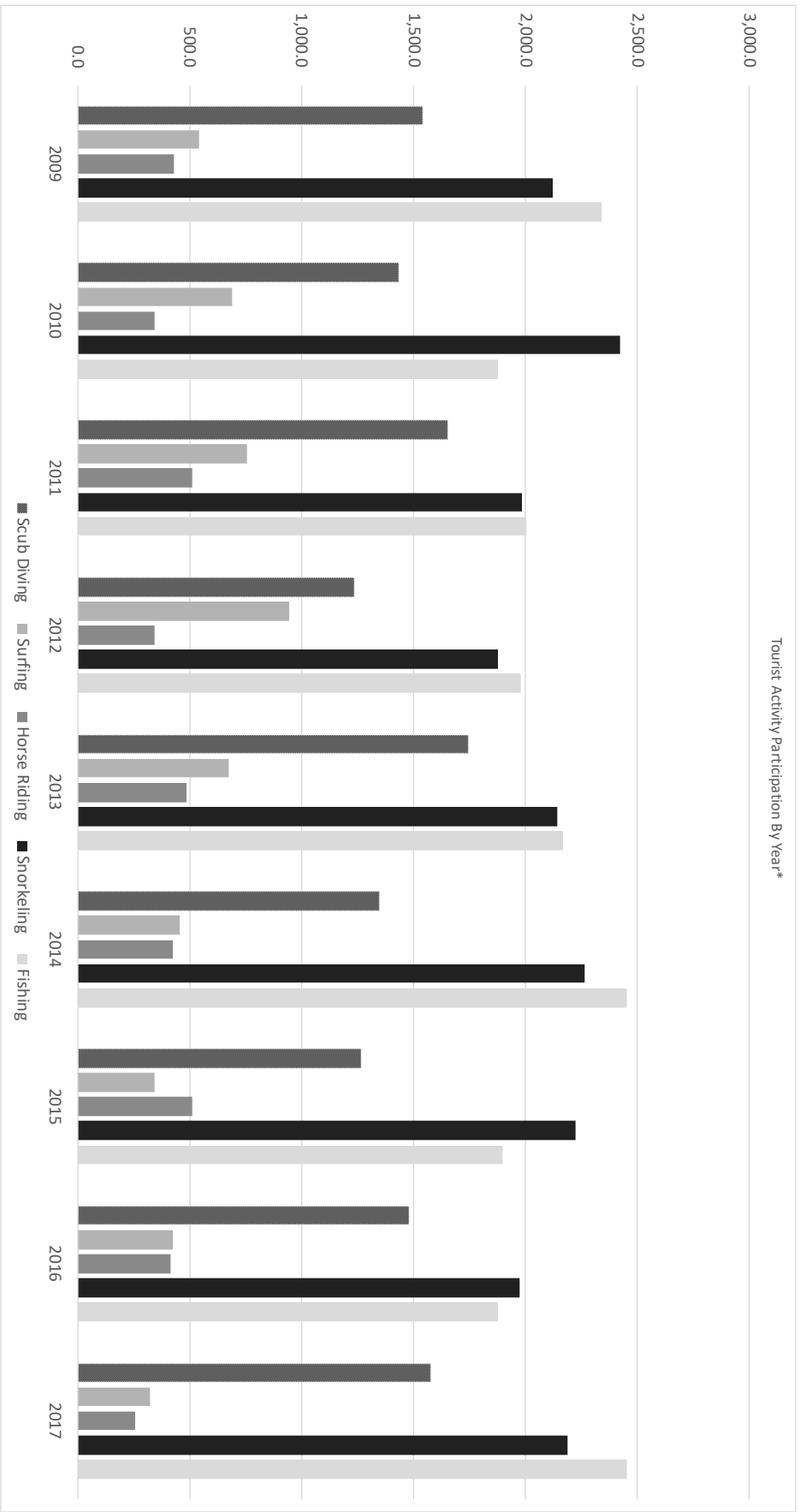
- | | | | |
|--|--------------|--|--------------|
| | Scuba Diving | | Airport |
| | Fishing Pier | | Public Beach |
| | Surfing | | Marina |
| | Restaurant | | Ferry Dock |
| | Horse Riding | | Ferry Route |
| | Hospital | | Resort |
| | Lagoon | | Campsite |

1 inch = 2 miles

Two Sister Islands

16. How many resorts are on Maria Island?
- 0
 - 1
 - 2
 - 3
17. How many inches from the ferry dock on Tanya Island would the mainland be if it were shown on the map?
- 1
 - 2
 - 3
 - 4
18. Red Reef is located off what area of Tanya Island?
- East
 - West
 - North
 - South
19. What does the dotted line indicate?
- Island Road
 - Ferry Route
 - Island Boundary
 - None of the above
20. Which beach is located next to a campsite?
- Lagoon Beach
 - South Beach
 - Sunny Beach
 - Bend Beach
21. What type of recreation can be found near South Beach?
- Surfing
 - Horse Riding
 - Scuba Diving
 - None of the above
22. What direction does the ferry go to take passengers from Maria Island to Tanya Island?
- East
 - West
 - North
 - South
23. Going by the main roads show on the map, which resort has the shortest drive to go horse riding?
- Surf Resort
 - Island Life Resort
 - Sunrise Resort
 - Pebble Beach Resort
24. How many surfing areas are shown on the map?
- 1
 - 2
 - 3
 - 4
25. How long is Island Road 3?
- About 5 miles
 - About 9 miles
 - About 14 miles
 - About 20 miles
- TRUE/FALSE**
26. The ferry goes directly from Maria Island to the mainland.
27. All of the resorts are accessible from Island Road 1.
28. All diving areas are associated with reefs.
29. The mainland is six miles west of Tanya Island.
30. The airport is less than two miles southwest of the hospital.

Tourist Activity Participation By Year*



*Numbers based on participation in post visit survey. About half of all surveys sent out were returned.

Tourist Activity Participation By Year

31. Years are represented on what axis?
- X
 - Y
 - Both
 - Neither
32. What does the darkest bar represent?
- 2013
 - 2017
 - Surfing
 - Snorkeling
33. Which of the following years saw the highest number of tourists go fishing?
- 2014
 - 2013
 - 2012
 - 2011
34. How many categories saw increases in participation in every year?
- 0
 - 1
 - 2
 - 3
35. What year saw the biggest jump in participation in surfing from the previous year?
- 2014
 - 2013
 - 2012
 - 2011
36. What year had the highest combined numbers?
- 2013
 - 2014
 - 2015
 - 2016
37. In how many years were there more tourist riding horses than surfing?
- 0
 - 1
 - 2
 - 3
38. How many years of data are displayed on the graph?
- 7
 - 8
 - 9
 - 10
39. How many activities had above 1,500 participants in every year?
- 1
 - 2
 - 3
 - 4
40. Which of the following had the highest combined participation across all years show on the graph?
- Scuba Diving
 - Surfing
 - Horse Riding
 - Fishing

TRUE/FALSE

41. The graph displays information for all tourist during that time period.
42. Either fishing or snorkeling saw the highest amount of participation every year.
43. 2011 had increases in participation from the previous year in every category.
44. Participation in fishing never dropped below 2,000 for the year.
45. Scuba diving was always the third most popular activity.

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Antarctica Land Cover Map and The Arctic Land Cover Map

46. What do the red dots on the Antarctica Land Cover Map indicate?
- Capitals
 - Continental Boundary
 - Research Stations
 - International Boundary
47. What is the vertical exaggeration of the cross section of the Antarctica Land Cover Map?
- 25 to 1
 - 31 to 1
 - 37 to 1
 - 42 to 1
48. What body of water separates Norway from the United Kingdom?
- Norwegian Sea
 - North Sea
 - Sea of Okhotsk
 - Kara Sea
49. How far is from the South Pole to Vostok Research Station?
- About 500 miles
 - About 650 miles
 - About 800 miles
 - About 950 miles
50. The Prime Meridian runs through which of the following?
- South Pole
 - North Pole
 - Both of the above
 - None of the above
51. The land cover type on Baffin Island is mostly of what type?
- Tundra
 - Glacier
 - Grassland
 - Cropland
52. What city can be found at 54° N, 113° W?
- Helsinki
 - Edmonton
 - Moscow
 - London
53. The Lena River flows through what country?
- Norway
 - Greenland
 - Canada
 - Russia
54. The Casey Research Station is run by what nation?
- Australia
 - Russia
 - United States
 - Canada
- TRUE/FALSE**
55. The land cover is more varied in the Arctic than in Antarctica.
56. Helsinki, Finland is just north of the Arctic Circle.
57. South Shetland Island is a territory of the United States.
58. The Syowa Research Station is owned by Japan.
59. Tundra can be found on the Scandinavian Peninsula.
60. The Antarctica Land Cover Map and The Arctic Land Cover Map have the same scale.

Numbers of Fish Caught by Month

61. What does the Y axis indicate?
- Number of fish caught
 - The type of fish caught
 - The total pounds of fish caught
 - None of the above
62. In what month were the most sharks caught?
- June
 - July
 - August
 - September
63. Which of the following had the least total amount caught over the time shown in the graph?
- Wahoo
 - Marlin
 - Grouper
 - Sharks
64. In how many months were more wahoo caught than tuna?
- 0
 - 1
 - 2
 - 3
65. Which type of fish was caught the most in the month of June?
- Tuna
 - Wahoo
 - Marlin
 - Sailfish
66. Which of the following months had the highest numbers caught for all types combined?
- May
 - June
 - July
 - August
67. How many different years are represented on the graph?
- 1
 - 2
 - 3
 - 4
68. In how many months did grouper catches fall below 100?
- 0
 - 2
 - 3
 - 4
69. How many types of fish had total catches over 1,000 for all months combined?
- 0
 - 2
 - 3
 - 4
70. About how many wahoo were caught in May?
- About 100
 - About 200
 - About 300
 - About 400
- TRUE/FALSE**
71. In April more sharks than grouper were caught.
72. June had the fewest number of catches for all types of fish.
73. The darkest portion on all of the columns represent a single type of catch.
74. The highest number of sailfish were caught in September.
75. Each column represents one month.



University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2019-2020
5/6 Spring District
Answer Key

1. C	26. F	51. A
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8. C	33. A	58. T
9. D	34. A	59. T
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24. B	49. C	74. T
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CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ out of 250. Initials _____

_____ out of 250. Initials _____

Papers contending to place:

_____ out of 250. Initials _____



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

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

Circle Grade Level:

6 7 8

- | | | | | | | | | | | | |
|-----|---|---|---|---|---|-----|---|---|---|---|---|
| 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 2019-2020

A+ ACADEMICS



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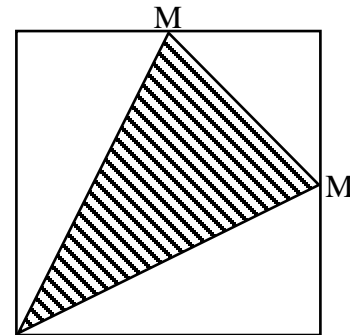


Mathematics

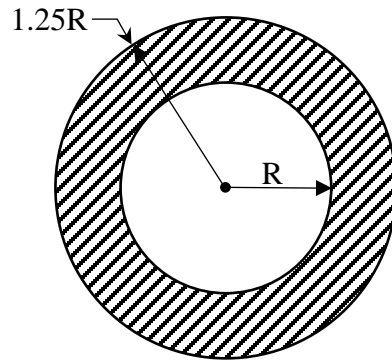
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2019 – 2020 University Interscholastic League JH/MS Mathematics Contest A

- (1) Evaluate: $2^4 \div 4^{1/2} \times 2^{-2}$
 A) 8 B) -2 C) 4 D) $\frac{1}{2}$ E) 2
- (2) $3\frac{1}{3} \times 6\frac{1}{3} =$
 A) $18\frac{1}{9}$ B) $18\frac{1}{3}$ C) $19\frac{1}{3}$ D) $21\frac{1}{9}$ E) $20\frac{1}{9}$
- (3) What is the number of hours in four days?
 A) 96 B) 84 C) 72 D) 60 E) 48
- (4) The sides of a rectangle are changed so that the new rectangle has a width that is increased by 20% and the length is increased by 25%. By what percent is the original rectangle's area increased?
 A) 5% B) 45% C) 50% D) 145% E) 150%
- (5) Matt tied a 25-foot long rope to the top of a pole and stretched the rope taut to the level ground. If the rope on the ground is 20 feet away from the base of the pole, how tall is the pole?
 A) $\sqrt{41}$ feet B) $5\sqrt{41}$ feet C) $22\frac{1}{2}$ feet D) 15 feet E) None of these
- (6) One hot summer day Mackenzie finished her lunch at 12:15 PM, took a $1\frac{3}{4}$ hour nap and then went swimming 30 minutes later. At what time did she start swimming?
 A) 1:15 PM B) 2:30 PM C) 2:45 PM D) 3:15 PM E) 3:30 PM
- (7) Andy took 16 identical wooden cubes that measured 2 inches on a side. He placed the cubes on a sheet of paper so that their faces were touching and formed a square that measured 4 cubes by 4 cubes. If Andy then spray-painted the square of cubes, what area of the cubes was not painted?
 A) 512 in^2 B) 384 in^2 C) 256 in^2 D) 128 in^2 E) 64 in^2
- (8) If the point M is at the midpoint of the sides for the square to the right, what percentage of the square area is the shaded region?

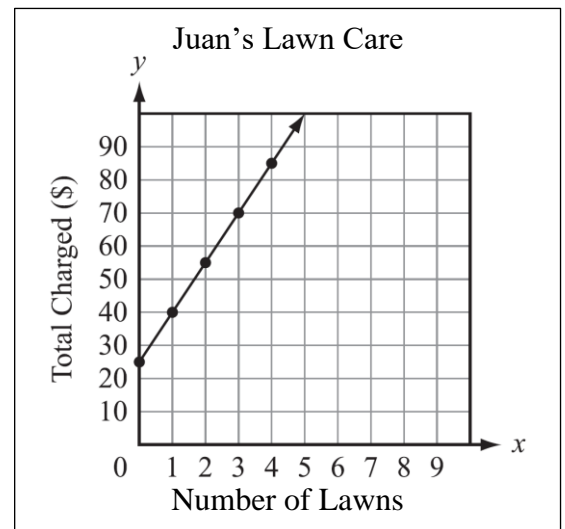


- (9) In the drawing to the right, if R is the radius of the smaller circle, what percentage of the larger circle is the shaded portion?



- A) 25 %
- B) 36 %
- C) 40 %
- D) 44 %
- E) 64 %

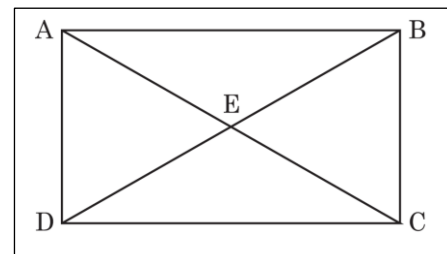
- (10) Juan mows lawns. The line graph to the right shows how much money Juan makes mowing lawns. Based on the graph, which statement is true?
- A) Juan charges exactly \$25 for each lawn worked.
 - B) Juan charges exactly \$40 for each lawn worked.
 - C) Juan charges a \$25 initial fee and \$15 for each mowed lawn.
 - D) Juan charges a \$25 initial fee and \$25 for each mowed lawn.
 - E) Juan charges a \$25 initial fee and \$40 for each mowed lawn.



- (11) Which number is equivalent to: $1,824 \div 4 \div 3 \div 2$?
- A) 76
 - B) 152
 - C) 228
 - D) 304
 - E) 456

- (12) Liz is surveying her class about sports. Which survey question will generate data that can be **best** recorded in a frequency table?
- A) What is your favorite sports memory?
 - B) Why do you like soccer more than basketball?
 - C) What racing team is the most liked by NASCAR fans?
 - D) If you spent a day at a lake in the summer, what would you do?
 - E) Which sport do you like the most: basketball, football, soccer, or tennis?

- (13) A rectangle is divided using its diagonals as shown to the right. Which of the following figures are congruent?
- A) $\triangle ABE$ and $\triangle ADE$
 - B) $\triangle AEB$ and $\triangle DCE$
 - C) $\triangle ADE$ and $\triangle ABD$
 - D) $\triangle ADC$ and $\triangle ADE$
 - E) $\triangle DCE$ and $\triangle DAB$



- (24) How many 3-digit positive integers have digits whose product equals 24?
 A) 12 B) 15 C) 18 D) 21 E) 24
- (25) A sign at the store’s fish market states, “50% off, today only: half-pound packages for just \$3 per package”. What is the regular price for a full pound of fish, in dollars?
 A) \$6 B) \$9 C) \$10 D) \$12 E) \$15
- (26) Eight friends ate at a restaurant and agreed to share the bill equally. Because Amanda forgot her money, each of her seven friends paid an extra \$2.50 to cover her portion of the total bill. What was the total bill?
 A) \$120 B) \$128 C) \$140 D) \$144 E) \$160
- (27) A fair coin is tossed 3 times. What is the probability of at least two consecutive heads?
 A) $\frac{1}{4}$ B) $\frac{3}{8}$ C) $\frac{1}{2}$ D) $\frac{1}{8}$ E) $\frac{3}{4}$
- (28) What is the ratio of the greatest common factor of 24 and 54 to the least common multiple of 24 and 54?
 A) $\frac{1}{36}$ B) $\frac{1}{6}$ C) $\frac{1}{3}$ D) $\frac{4}{9}$ E) $\frac{2}{9}$
- (29) Paige is in the 5th grade and weighs 106 pounds. Her quadruplet brothers are tiny babies and weigh 5, 5, 6, and 8 pounds. Which is greater, the average (mean) weight of these five children or the median weight, and by how many pounds?
 A) median by 60 B) average by 5 C) median by 20 D) average by 15 E) average by 20
- (30) In Harris county, statisticians estimate there is a baby born every 8 hours and a death every day. To the nearest hundred, how many people are added to the population of Harris county each year?
 A) 600 B) 700 C) 800 D) 900 E) 1,000
- (31) In a middle school football district, each team plays every other team exactly once. If a total of 21 district games were played during the 2020 season, how many teams were members of this district?
 A) 6 B) 7 C) 8 D) 9 E) 10
- (32) What is the unit’s digit for 13^{2020} ?
 A) 1 B) 2 C) 3 D) 7 E) 9
- (33) $24 \times 0.1666 \dots =$
 A) 4 B) 6 C) 3 D) $\frac{1}{4}$ E) 8
- (34) A black bag contains a number of marbles, each of which is red, white or blue. If there are 12 red, 20 white and 18 blue what are the odds of Noah drawing a blue marble in the first random draw?
 A) $\frac{9}{25}$ B) $\frac{9}{10}$ C) $\frac{2}{3}$ D) $\frac{9}{16}$ E) $\frac{3}{5}$
- (35) What is the volume of a square pyramid with base side of 9 inches and height of 15 inches?
 A) $1,215 \text{ in}^3$ B) $2,025 \text{ in}^3$ C) 567 in^3 D) 550 in^3 E) 405 in^3

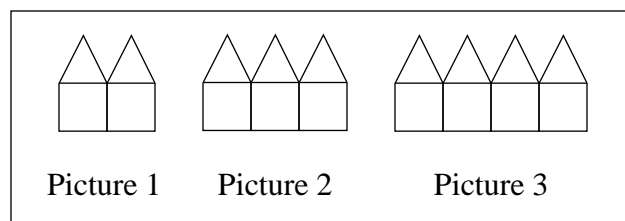
- (36) What is the 7th term in the pattern: 1, 3, 7, 15, 31, . . . ?
 A) 46 B) 47 C) 63 D) 127 E) 128
- (37) Albert wants to shrink the size of an image on a poster. The image has a length of 35 centimeters (cm) and a width of 28 centimeters. The shrunken image will be similar to the original image and has a width of 9 centimeters. What will be the length of the shrunken image?
 A) 2 cm B) $7\frac{1}{5}$ cm C) $11\frac{1}{4}$ cm D) 12 cm E) 16 cm
- (38) What will the interior angles of a 7-sided polygon add up to?
 A) 540° B) 600° C) 720° D) 880° E) 900°
- (39) A movie club charges a \$7.99/month membership fee for unlimited old movies plus a \$3.99/movie fee for new-release videos. Which equation represents the total cost (C) of one month of membership including renting a certain number of new-release movies (m)?
 A) $7.99C = 3.99m$
 B) $C = 3.99m + 7.99$
 C) $C = 7.99m + 3.99$
 D) $C = 3.99m - 7.99$
 E) $C = \frac{3.99}{m} + 7.99$

- (40) A student records data for the maximum number of diagonals that can be drawn inside some polygons in the table to the right. Which algebraic formula generalizes the relationship between the number of sides of a polygon, s , and the number of diagonals, d , in the polygon?

Number of Sides (s)	Number of Diagonals (d)
3	0
4	2
5	5
6	9
7	14

- A) $d = s - 2$
 B) $d = \frac{s}{3} - 1$
 C) $d = \frac{s(s-3)}{2}$
 D) $d = s^2 - 1$
 E) $d = 2s - 6$

- (41) To the right are 3 pictures in a sequence of pictures. Picture 1 uses 11 toothpicks. I wish to continue to build the pictures in the sequence using toothpicks. What is the first picture that will use at least 1000 toothpicks?



- A) Picture 197
 B) Picture 198
 C) Picture 199
 D) Picture 200
 E) Picture 201

2019 – 2020 University Interscholastic League JH/MS Mathematics Contest A – Key

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

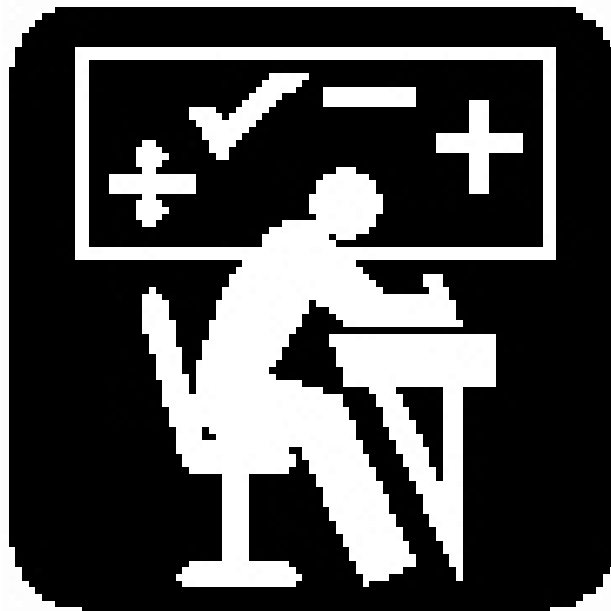
- (26) C
- (27) B
- (28) A
- (29) E
- (30) B
- (31) B
- (32) A
- (33) A
- (34) D
- (35) E
- (36) D
- (37) C
- (38) E
- (39) B
- (40) C
- (41) C
- (42) C
- (43) A
- (44) E
- (45) C
- (46) A
- (47) B
- (48) E (91)
- (49) A
- (50) C

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League

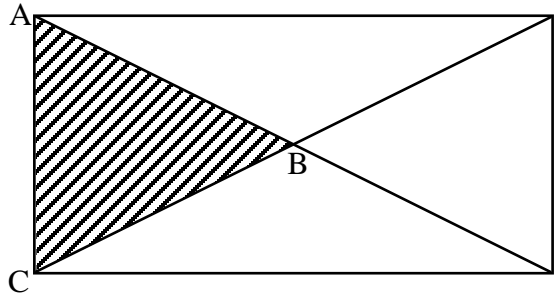


Mathematics

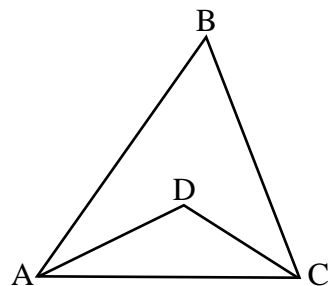
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2019 – 2020 University Interscholastic League JH/MS Mathematics Contest B

- (1) Evaluate: $6\frac{2}{3} \times 10^{-1}$
- A) $\frac{2}{3}$ B) $1\frac{1}{3}$ C) $2\frac{1}{3}$ D) $1\frac{1}{2}$ E) $66\frac{2}{3}$
- (2) $9\frac{1}{3} \times 9\frac{2}{3} =$
- A) $90\frac{1}{9}$ B) $81\frac{1}{3}$ C) $81\frac{2}{9}$ D) $90\frac{1}{3}$ E) $90\frac{2}{9}$
- (3) What is the number of hours in two and two-thirds days?
- A) 16 B) 24 C) 40 D) 64 E) 72
- (4) A rectangle with a side of length 12 centimeters (cm) has a diagonal length of 15 cm. What is the perimeter of this rectangle?
- A) 14 cm B) 21 cm C) 42 cm D) 72 cm E) 108 cm
- (5) If a rod is $16\frac{1}{2}$ feet long, how many rods are in one mile?
- A) 640 rods B) 575 rods C) 500 rods D) 320 rods E) 160 rods
- (6) Wes took all the pennies he had in his piggy bank and started to make piles of pennies. In the first pile he placed one penny; in the second pile he placed two pennies, in the third pile he placed three pennies; and so on until he created 15 piles with the same pattern of penny placement. How much money did Wes have in all?
- A) \$120.00 B) \$1.20 C) \$10.50 D) \$11.50 E) \$112.50
- (7) There are 24 marbles in a bag. Albert reaches in the bag and pulls out one-third of the marbles. Elizabeth then reaches in the bag and pulls out one half of what was left. What percentage of the marbles were pulled out of the bag?
- A) 8% B) 16% C) 24% D) 48% E) $66\frac{2}{3}\%$
- (8) The figure to the right is a rectangle. If the area of $\triangle ABC$ is 250 cm^2 and $\overline{AC} = 20 \text{ cm}$, what percent of the rectangle area is the shaded region?
- A) 25 %
- B) $\frac{1}{5}$ %
- C) 20 %
- D) 40 %
- E) $20\frac{1}{5}$ %



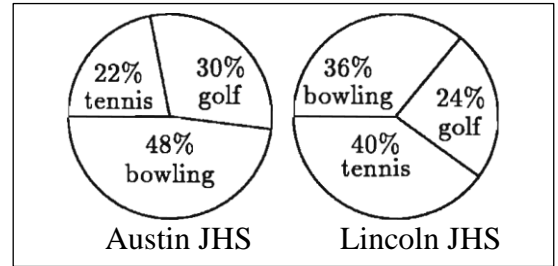
- (9) What is the probability of drawing a red Jack from a standard deck of 52 cards?
 A) $\frac{1}{26}$ B) $\frac{1}{13}$ C) $\frac{1}{3}$ D) $\frac{1}{52}$ E) $\frac{2}{13}$
- (10) Mario decided to read a book in a special way. He decided to read only half the number of pages that were left to read each day. If the book was 256 pages long, how many days did it take Mario to finish reading the book?
 A) 128 days B) 16 days C) 14 days D) 12 days E) 8 days
- (11) What number multiplied by itself four times is equal to 81?
 A) 9 B) 3 C) -3 D) 3 or -3 E) None of these
- (12) The time it took a solar car to travel around a circular track was 24 minutes. If the solar car was then to travel around a circular track with twice the radius at the same average speed, how long would it take the car to travel around the track?
 A) 12 minutes B) 36 minutes C) 48 minutes D) 72 minutes E) None of these
- (13) The 64 whole numbers from 1 through 64 are written, one per square, on a checkerboard (an 8 by 8 array of 64 squares). The first 8 numbers are written in order across the first row, the next 8 across the second row, and so on. After all 64 numbers are written, what will the sum of the numbers in the four corners will be?
 A) 130 B) 131 C) 132 D) 133 E) 134
- (14) How many positive factors of 36 are also multiples of 4?
 A) 2 B) 3 C) 4 D) 5 E) 6
- (15) In the triangle to the right, the measure of $\angle ABC$ is 50° . \overline{AD} bisects $\angle BAC$ and \overline{DC} bisects $\angle BCA$. What is the measure $\angle ADC$?
 A) 90°
 B) 100°
 C) 115°
 D) $122\frac{1}{2}^\circ$
 E) 125°



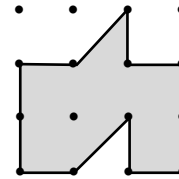
- (16) Genny's monthly salary was \$2000 in November. In December she received a 20% raise. In January she received a 20% pay cut. After the two changes in December and January, what was Genny's monthly salary?
 A) \$1,920 B) \$1,980 C) \$2,000 D) \$2,020 E) \$2,040
- (17) Noah has goldfish that quadruple every month, and Kenzie has goldfish that double every month. If Noah has 4 goldfish at the same time that Kenzie has 128 goldfish, then in how many months from that time will they have the same number of goldfish?
 A) 4 B) 5 C) 6 D) 7 E) 8

- (18) What is the remainder when $2014 \times 2017 \times 2021 \times 2025$ is divided by 5?
 A) 0 B) 1 C) 2 D) 3 E) 4
- (19) The volume of a square pyramid is 324 cm^3 . If the area of the base is 81 cm^2 , what is the height of this pyramid?
 A) 3 cm B) 4 cm C) 8 cm D) 12 cm E) 16 cm

- (20) The pie charts to the right indicate the percent of students who prefer golf, bowling or tennis at Austin JHS. and Lincoln JHS. The total number of students at Austin is 2,000 and Lincoln is 2,500. What is the number of students who prefer tennis in the combined school populations?
 A) 440
 B) 1,000
 C) 1,440
 D) 1,550
 E) 4,250

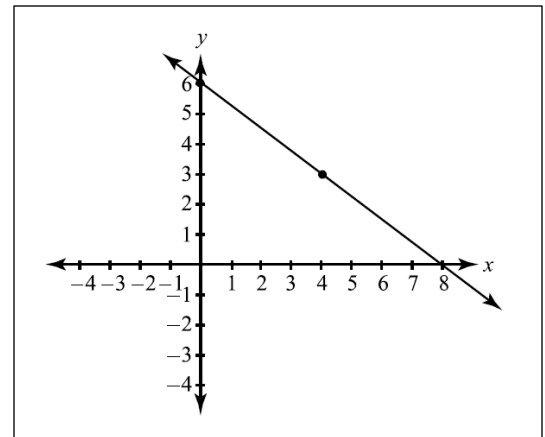


- (21) The diagram to the right shows dots that are spaced one unit apart, horizontally and vertically. How many square units are enclosed by the shaded polygon?
 A) 5 units^2
 B) 6 units^2
 C) 7 units^2
 D) 8 units^2
 E) 9 units^2

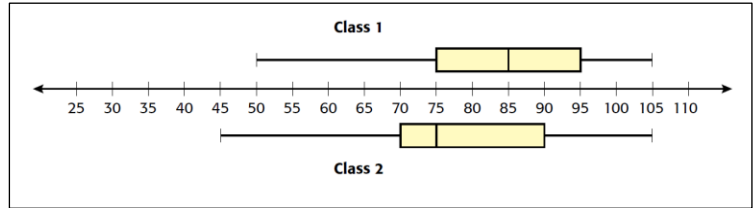


- (22) When four gallons are added to a tank that is one-third full, the tank is then one-half full. What is the capacity of the tank in gallons?
 A) 8 gallons B) 12 gallons C) 20 gallons D) 24 gallons E) 48 gallons
- (23) If two dice are tossed, what is the probability that the product of the numbers showing on the tops of the dice is greater than 10?
 A) $\frac{15}{22}$ B) $\frac{11}{36}$ C) $\frac{17}{36}$ D) $\frac{17}{18}$ E) $\frac{11}{18}$

- (24) What is the equation of the line in the graph to the right?
 A) $y = \frac{3}{4}x + 6$
 B) $y = -3x + 6$
 C) $y = \frac{3}{4}x - 6$
 D) $y = -\frac{3}{4}x + 6$
 E) $y = -\frac{3}{4}x - 6$



- (25) Mr. Zapata gave the same quiz to two mathematics classes he taught. The box-and-whisker plots to the right were created using the quiz scores the students earned in each class. Looking at the plot which of the following statements is true?



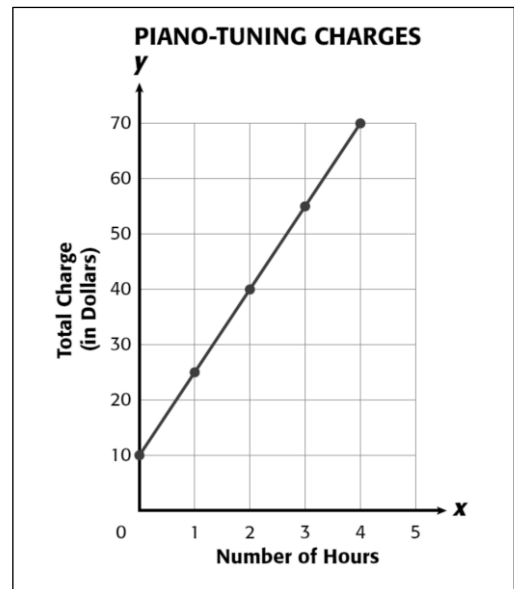
- A) The median scores for both classes are identical.
- B) The lowest scores for both classes are identical.
- C) The median for class 1 is 10 points more than class 2.
- D) The median for class 2 is 70.
- E) The median for class 1 is 95.

- (26) Mike has a box filled with different colored marbles that are the same size and shape. To the right is a list of each color of marble and the number of each in the box. Mike will randomly choose 1 marble, record the color, and not put the marble back. If Mike does this two times, what is the probability that both marbles will be black?

Color	Number
Red	3
Purple	2
Green	2
Black	2
Yellow	2
Orange	3

- A) $\frac{1}{49}$
 - B) $\frac{1}{72}$
 - C) $\frac{1}{91}$
 - D) $\frac{1}{95}$
 - E) $\frac{1}{98}$
- (27) The scale on Matt’s map is 0.5 inch represents 8 miles. The route from Matt’s house to his friend’s house is 3.25 inches on his map. What is the actual distance of Matt’s route?
- A) 61.25 miles
 - B) 52.00 miles
 - C) 20.31 miles
 - D) 13.00 miles
 - E) 11.75 miles

- (28) Paige is a piano tuner. She charges her clients a fixed amount for a house call plus labor, which is based on an hourly rate. The graph to the right shows how much Paige charges as a function of time required to tune a piano. Which of the following best represents Paige’s hourly rate for labor?



- A) \$10
- B) \$15
- C) \$20
- D) \$25
- E) \$30

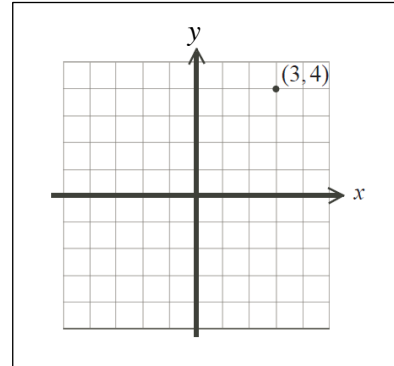
- (29) $(2 + 4 + 6 + \dots + 24) - (1 + 3 + 5 + \dots + 23) =$
 A) 24 B) 20 C) 18 D) 16 E) 12
- (30) I have sold $\frac{2}{3}$ of my pencils for 15¢ each. If I have 8 pencils left, how much money did I collect for the pencils sold?
 A) 60 ¢ B) \$1.20 C) \$1.80 D) \$2.40 E) \$3.00
- (31) If the operation $*$ is defined as $x*y = (x - y)(x + y)x + xy$, then $4*3 =$
 A) -10 B) 12 C) 18 D) 24 E) 40
- (32) What is the greatest common divisor of 48, 72, and 216?
 A) 8 B) 12 C) 16 D) 18 E) 24
- (33) $8\frac{2}{3} \div 0.0666\dots =$
 A) 130 B) $\frac{26}{45}$ C) 30 D) $1\frac{19}{26}$ E) 13
- (34) What is the perimeter of a regular hexagon with a side length of $2\frac{2}{3}$ meters?
 A) 16 meters B) $16\frac{1}{3}$ meters C) $12\frac{1}{3}$ meters D) $15\frac{2}{3}$ meters E) $21\frac{1}{3}$ meters
- (35) The equation $2x^2 - 6x + 12 = 0$ has two answers. What is the sum of those two answers?
 A) $\frac{1}{3}$ B) -6 C) 3 D) 6 E) $-\frac{1}{6}$
- (36) What is the area of a square with a diagonal length of 12 centimeters (cm)?
 A) 6 cm^2 B) 24 cm^2 C) 48 cm^2 D) 72 cm^2 E) 144 cm^2
- (37) If the area of a rhombus is 36 square inches and one diagonal has a length of 4 inches, what is the length of the other diagonal?
 A) 9 inches B) 12 inches C) 18 inches D) 20 inches E) 24 inches
- (38) For a traditional analog clock, what is the ratio of the speed of the hour's hand to the second's hand?
 A) $\frac{1}{360}$ B) $\frac{1}{720}$ C) $\frac{1}{3600}$ D) 3600 E) 72
- (39) How many days are between May 15th and July 12th of the same calendar year?
 A) 61 days B) 60 days C) 59 days D) 58 days E) 57 days
- (40) $46\text{ base }8 + 237\text{ base }8 = \underline{\hspace{1cm}}\text{?}\underline{\hspace{1cm}}\text{ base }8.$
 A) 283 base 8 B) 350 base 8 C) 305 base 8 D) 341 base 8 E) 203 base 8
- (41) Twenty-four percent of thirty-six is the same as seventy-two percent of what number?
 A) 48 B) 44 C) 40 D) 18 E) 12

(42) Joseph and Jackson were riding bicycles toward each other in a straight line. Joseph is peddling at an average speed of 15 miles per hour (mph) and Jackson average speed is 10 mph. If the distance between them is 110 yards, how long does it take them to reach other?

- A) 3 minutes B) 9 seconds C) 45 seconds D) $13\frac{1}{5}$ seconds E) 30 seconds

(43) If the point (3, 4) is reflected in the x -axis, as shown to the right, what are the coordinates of its image?

- A) (-4, 3)
 B) (-3, 4)
 C) (4, 3)
 D) (3, -4)
 E) (-3, -4)



(44) Five children had dinner. Chris ate more than Max. Brandon ate less than Kayla. Kayla ate less than Max but more than Tia. Which child ate the second most?

- A) Brandon B) Max C) Kayla D) Chris E) Tia

(45) A palindrome is a positive integer that is the same when read forwards or backwards. For example, 545 and 1331 are both palindromes. What is the positive difference between the smallest three-digit palindrome and the largest three-digit palindrome?

- A) 878 B) 888 C) 898 D) 909 E) 979

(46) Three pumpkins are weighed two at a time in all possible ways. The weights of the pairs of pumpkins are 12 lbs, 13 lbs and 15 lbs. How much does the lightest pumpkin weigh?

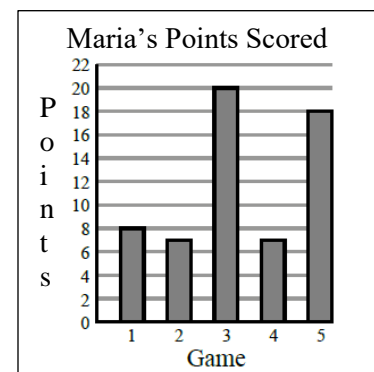
- A) 4 lbs B) 5 lbs C) 6 lbs D) 7 lbs E) 8 lbs

(47) How many positive two-digit whole numbers are divisible by 7?

- A) 9 B) 10 C) 12 D) 14 E) None of these

(48) The graph to the right shows points scored by Maria in her first five basketball games. What is the difference between the mean and the median of the number of points that she scored?

- A) 1
 B) 2
 C) 3
 D) 4
 E) 5



(49) Which of the following is equal to seventeen?

- A) $3 - 4 \times 5 + 6$ B) $3 \div 4 + 5 - 6$ C) $3 \times 4 + 5 \div 6$ D) $3 \times 4 \div 6 + 5$ E) $3 + 4 \times 5 - 6$

(50) Ten circles are all the same size. Each pair of these circles overlap but no circle is exactly on top of another circle. What is the greatest possible total number of intersection points of these ten circles?

- A) 40 B) 80 C) 90 D) 100 E) 110

2019 – 2020 University Interscholastic League JH/MS Mathematics Contest B – Key

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

- (26) C
- (27) B
- (28) B
- (29) E
- (30) D
- (31) E
- (32) E
- (33) A
- (34) A
- (35) C
- (36) D
- (37) C
- (38) B
- (39) E
- (40) C
- (41) E
- (42) B
- (43) D
- (44) B
- (45) C
- (46) B
- (47) E (13)
- (48) D
- (49) E
- (50) C

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League

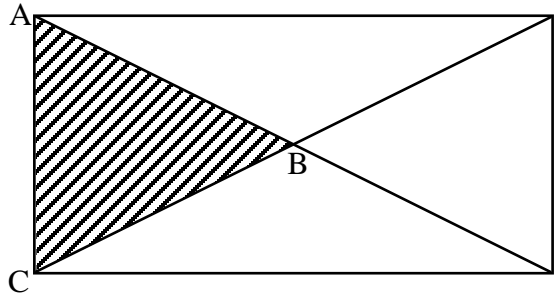


Mathematics

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

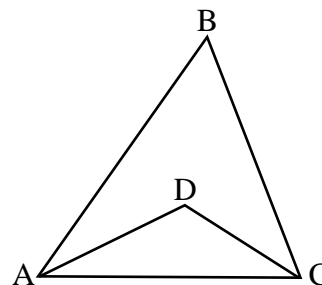
2019 – 2020 University Interscholastic League JH/MS Mathematics Contest C

- (1) Evaluate: $6\frac{2}{3} \div 6^{-1}$
- A) $1\frac{2}{3}$ B) $36\frac{1}{3}$ C) 40 D) 38 E) $36\frac{2}{3}$
- (2) $8\frac{1}{4} \times 8\frac{3}{4} =$
- A) $64\frac{3}{4}$ B) $72\frac{3}{16}$ C) $72\frac{3}{4}$ D) $64\frac{3}{16}$ E) $64\frac{1}{2}$
- (3) What is the number of hours in two and one-fourth days?
- A) 54 B) 30 C) 27 D) 48 E) 135
- (4) A rectangle with a side of length 10 centimeters (cm) has a diagonal length of 26 cm. What is the perimeter of this rectangle?
- A) 13 cm B) 26 cm C) 39 cm D) 52 cm E) 68 cm
- (5) If a rod is $16\frac{1}{2}$ feet long, how many rods are in one-half mile?
- A) 640 rods B) 575 rods C) 500 rods D) 320 rods E) 160 rods
- (6) Wes took all the pennies he had in his piggy bank and started to make piles of pennies. In the first pile he placed one penny; in the second pile he placed two pennies, in the third pile he placed three pennies; and so on until he created 14 piles with the same pattern of penny placement. How much money did Wes have in all?
- A) \$1.40 B) \$1.05 C) \$1.50 D) \$10.50 E) \$105
- (7) There are 24 marbles in a bag. Albert reaches in the bag and pulls out one-fourth of the marbles. Elizabeth then reaches in the bag and pulls out one third of what was left. What percentage of the marbles were pulled out of the bag?
- A) 6% B) 12% C) 25% D) 50% E) $66\frac{2}{3}\%$
- (8) The figure to the right is a rectangle. If the area of $\triangle ABC$ is 250 cm^2 and $\overline{AC} = 20\text{ cm}$, what percent of the rectangle area is the non-shaded region?
- A) 75 %
- B) $\frac{3}{4}\%$
- C) 25 %
- D) 40 %
- E) $75\frac{3}{4}\%$



- (9) What is the probability of drawing a queen from a standard deck of 52 cards?
 A) $\frac{1}{26}$ B) $\frac{1}{13}$ C) $\frac{1}{3}$ D) $\frac{1}{52}$ E) $\frac{2}{13}$
- (10) Mario decided to read a book in a special way. He decided to read only half the number of pages that were left to read each day. If the book was 512 pages long, how many days did it take Mario to finish reading the book?
 A) 128 days B) 16 days C) 14 days D) 9 days E) 8 days
- (11) What number multiplied by itself four times is equal to 16?
 A) 4 B) 2 C) -2 D) 2 or -2 E) None of these
- (12) The time it took a solar car to travel around a circular track was 24 minutes. If the solar car was then to travel around a circular track with one-half the radius at the same average speed, how long would it take the car to travel around the track?
 A) 96 minutes B) 48 minutes C) 37 minutes D) 12 minutes E) None of these
- (13) The 64 whole numbers from 1 through 64 are written, one per square, on a checkerboard (an 8 by 8 array of 64 squares). The first 8 numbers are written in order across the first row, the next 8 across the second row, and so on. After all 64 numbers are written, what will be sum of the largest numbers in each row?
 A) 288 B) 280 C) 272 D) 264 E) 256
- (14) How many positive factors of 36 are also multiples of 2?
 A) 2 B) 3 C) 4 D) 5 E) 6

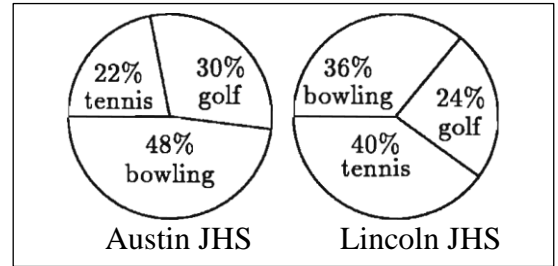
- (15) In the triangle to the right, the measure of $\angle ABC$ is 40° . \overline{AD} bisects $\angle BAC$ and \overline{DC} bisects $\angle BCA$. What is the measure $\angle ADC$?



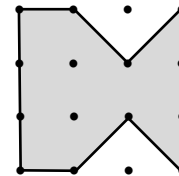
- A) 90°
 B) 110°
 C) 115°
 D) $122\frac{1}{2}^\circ$
 E) 125°
- (16) Genny's monthly salary was \$4000 in November. In December she received a 20% raise. In January she received a 20% pay cut. After the two changes in December and January, what was Genny's monthly salary?
 A) \$960 B) \$3,200 C) \$3,330 D) \$3,840 E) \$5,760
- (17) Noah has goldfish that quadruple every month, and Kenzie has goldfish that double every month. If Noah has 4 goldfish at the same time that Kenzie has 64 goldfish, then in how many months from that time will they have the same number of goldfish?
 A) 4 B) 5 C) 6 D) 7 E) 8

- (18) What is the remainder when $2014 \times 2016 \times 2018 \times 2020$ is divided by 5?
 A) 0 B) 1 C) 2 D) 3 E) 4
- (19) The volume of a square pyramid is 405 cm^3 . If the area of the base is 81 cm^2 , what is the height of this pyramid?
 A) 5 cm B) 9 cm C) 12 cm D) 15 cm E) 18 cm

- (20) The pie charts to the right indicates the percent of students that prefer golf, bowling or tennis at Austin JHS and Lincoln JHS. The total number of students at Austin is 2,000 and Lincoln is 2,500. What is the number of students who prefer bowling in the combined school populations?
 A) 900
 B) 960
 C) 1,200
 D) 1,860
 E) 3,060

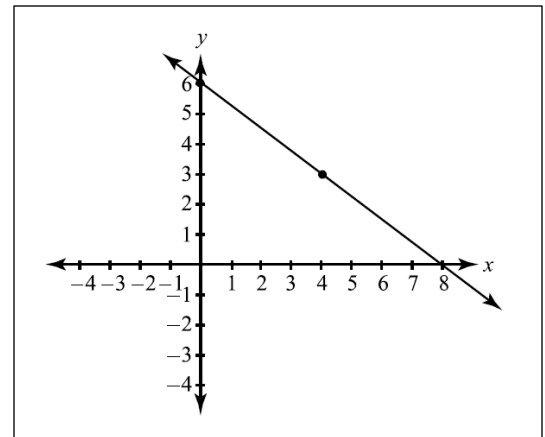


- (21) The diagram to the right shows dots that are spaced one unit apart, horizontally and vertically. How many square units are enclosed by the shaded polygon?
 A) 5 units^2
 B) 6 units^2
 C) 7 units^2
 D) 8 units^2
 E) 9 units^2

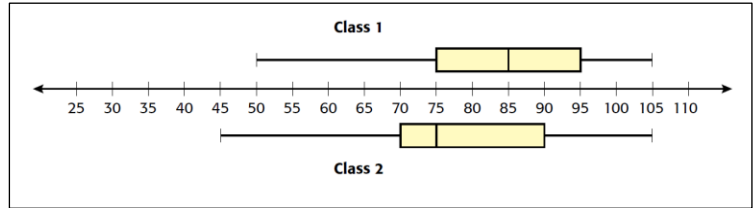


- (22) When five gallons are added to a tank that is one-third full, the tank is then one-half full. What is the capacity of the tank in gallons?
 A) 10 gallons B) 15 gallons C) 20 gallons D) 25 gallons E) 30 gallons
- (23) If two dice are tossed, what is the probability that the product of the numbers showing on the tops of the dice is less than 10?
 A) $\frac{15}{22}$ B) $\frac{11}{36}$ C) $\frac{17}{36}$ D) $\frac{17}{18}$ E) $\frac{11}{18}$

- (24) What is the slope of the line in the graph to the right?
 A) $\frac{3}{4}$
 B) 3
 C) $\frac{4}{3}$
 D) $-\frac{3}{4}$
 E) $-\frac{4}{3}$



- (25) Mr. Zapata gave the same quiz to two mathematics classes he taught. The box-and-whisker plots to the right were created using the quiz scores the students earned in each class. Looking at the plot which of the following statements is true?



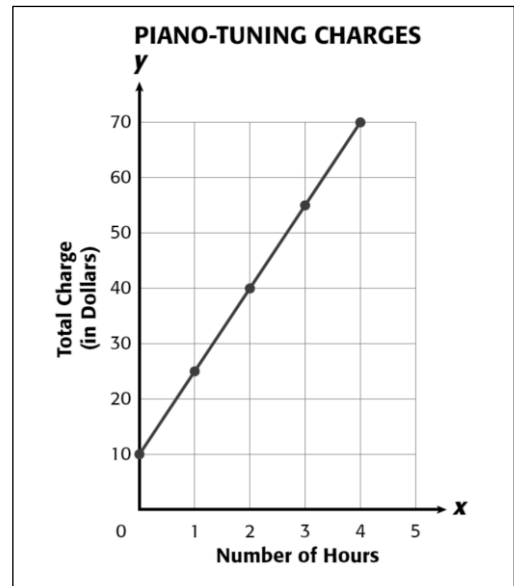
- A) The median scores for both classes are identical.
- B) The lowest score for class 1 is 50.
- C) The median for class 1 is 10 points less than class 2.
- D) The median for class 2 is 70.
- E) The median for class 1 is 95.

- (26) Mike has a box filled with different colored marbles that are the same size and shape. To the right is a list of each color of marble and the number of each in the box. Mike will randomly choose 1 marble, record the color, and not put the marble back. If Mike does this two times, what is the probability that both marbles will be red?

Color	Number
Red	3
Purple	2
Green	2
Black	2
Yellow	2
Orange	3

- A) $\frac{3}{91}$
 - B) $\frac{3}{14}$
 - C) $\frac{1}{91}$
 - D) $\frac{1}{7}$
 - E) $\frac{3}{182}$
- (27) The scale on Matt’s map is 0.5 inch represents 6 miles. The route from Matt’s house to his friend’s house is 3.25 inches on his map. What is the actual distance of Matt’s route?
- A) 6.50 miles
 - B) 9.75 miles
 - C) 13.00 miles
 - D) 19.50 miles
 - E) 39.00 miles

- (28) Paige is a piano tuner. She charges her clients a fixed amount for a house call plus labor, which is based on an hourly rate. The graph to the right shows how much Paige charges as a function of time required to tune a piano. If Paige charged \$115, how many hours did she work?



- A) 5 hours
- B) 6 hours
- C) 7 hours
- D) 8 hours
- E) 9 hours

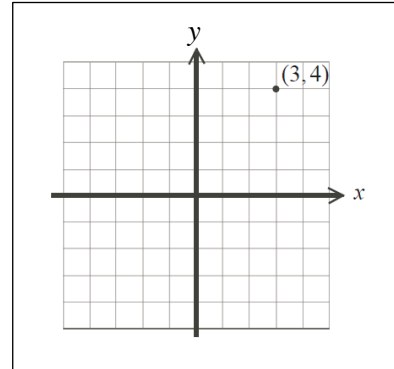
- (29) $(1 + 2 + 3 + \dots + 14) - (2 + 4 + 6 + \dots + 14) =$
 A) 42 B) 49 C) 56 D) 91 E) 105
- (30) I have sold $\frac{2}{3}$ of my pencils for 15¢ each. If I have 12 pencils left, how much money did I collect for the pencils sold?
 A) 60 ¢ B) \$1.20 C) \$1.80 D) \$2.40 E) \$3.60
- (31) If the operation $*$ is defined as $x*y = (x - y)(x + y)x + xy$, then $3*4 =$
 A) -9 B) 12 C) 18 D) 24 E) 40
- (32) What is the greatest common divisor of 48, 36, and 96?
 A) 288 B) 144 C) 72 D) 12 E) 2
- (33) $5\frac{1}{3} \div 0.0666\dots =$
 A) 75 B) 80 C) $75\frac{1}{3}$ D) $1\frac{16}{45}$ E) $\frac{16}{45}$
- (34) What is the perimeter of a regular hexagon with a side length of $1\frac{1}{6}$ meters?
 A) 7 meters B) $6\frac{1}{3}$ meters C) $49\frac{1}{3}$ meters D) $1\frac{7}{36}$ E) $5\frac{1}{7}$
- (35) The equation $2x^2 - 6x + 12 = 0$ has two answers. What is the product of those two answers?
 A) $\frac{1}{3}$ B) -6 C) 3 D) 6 E) $-\frac{1}{6}$
- (36) What is the area of a square with a diagonal length of 16 centimeters (cm)?
 A) 256 cm^2 B) 128 cm^2 C) 72 cm^2 D) 64 cm^2 E) 32 cm^2
- (37) If the area of a rhombus is 24 square inches and one diagonal has a length of 4 inches, what is the length of the other diagonal?
 A) 6 inches B) 12 inches C) 18 inches D) 20 inches E) 48 inches
- (38) For a traditional analog clock, what is the ratio of the speed of the hour's hand to the minute's hand?
 A) $\frac{1}{360}$ B) $\frac{1}{720}$ C) $\frac{1}{6}$ D) $\frac{1}{24}$ E) $\frac{1}{12}$
- (39) How many days are between May 21st and July 12th of the same calendar year?
 A) 48 days B) 49 days C) 50 days D) 51 days E) 52 days
- (40) $36\text{ base }8 + 257\text{ base }8 = \underline{\hspace{1cm}}\text{?}\underline{\hspace{1cm}}\text{ base }8.$
 A) 293 base 8 B) 355 base 8 C) 353 base 8 D) 315 base 8 E) 213 base 8
- (41) Twenty-four percent of forty-eight is the same as seventy-two percent of what number?
 A) 144 B) 115 C) 50 D) 32 E) 16

(42) Joseph and Jackson were riding bicycles toward each other in a straight line. Joseph is peddling at an average speed of 15 miles per hour (mph) and Jackson average speed is 10 mph. If the distance between them is 220 yards, how long does it take them to reach other?

- A) 6 seconds B) 12 seconds C) 18 seconds D) $26\frac{2}{5}$ seconds E) $580\frac{4}{5}$ seconds

(43) If the point (3, 4) is reflected in the y-axis, as shown to the right, what are the coordinates of its image?

- A) (-4, 3)
 B) (-3, 4)
 C) (4, 3)
 D) (3, -4)
 E) (-3, -4)



(44) Five children are celebrating birthdays. Chris is older than Max. Brandon younger than Kayla. Kayla is younger than Max but older than Tia. Which child is the second oldest?

- A) Brandon B) Kayla C) Max D) Chris E) Tia

(45) A palindrome is a positive integer that is the same when read forwards or backwards. For example, 545 and 1331 are both palindromes. What is the sum the smallest three-digit palindrome and the largest three-digit palindrome?

- A) 1,092 B) 1,096 C) 1,100 D) 1,104 E) 1,108

(46) Three pumpkins are weighed two at a time in all possible ways. The weights of the pairs of pumpkins are 12 lbs, 13 lbs and 15 lbs. How much does the largest pumpkin weigh?

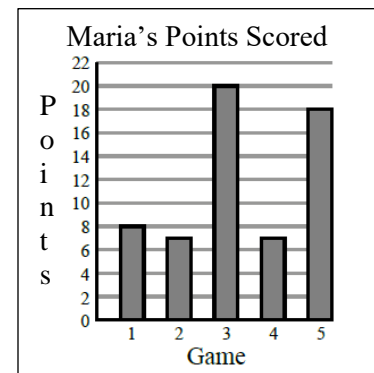
- A) 4 lbs B) 5 lbs C) 6 lbs D) 7 lbs E) 8 lbs

(47) How many positive two-digit whole numbers are divisible by 3?

- A) 29 B) 30 C) 31 D) 32 E) None of these

(48) The graph to the right shows points scored by Maria in her first five basketball games. What is the product of the mean and the median of the number of points that she scored?

- A) 74
 B) 77
 C) 84
 D) 88
 E) 96



(49) Which of the following is equal to negative eleven?

- A) $3 - 4 \times 5 + 6$ B) $3 \div 4 + 5 - 6$ C) $3 \times 4 + 5 \div 6$ D) $3 \times 4 \div 6 + 5$ E) $3 + 4 \times 5 - 6$

(50) Eight circles are all the same size. Each pair of these circles overlap but no circle is exactly on top of another circle. What is the greatest possible total number of intersection points of these eight circles?

- A) 40 B) 42 C) 44 D) 56 E) 72

2019 – 2020 University Interscholastic League JH/MS Mathematics Contest C – Key

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

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

**University Interscholastic League
2019 – 2020 Elementary Number Sense Test A**

Contestant's Number _____

Final		
2 nd		
1 st		
	Score	Initials

**Read Directions Carefully
Before Beginning Test**

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Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. **ALL PROBLEMS ARE TO BE SOLVED MENTALLY.** Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.

Stop – Wait for Signal!

- | | |
|--|--|
| <p>(1) $202 + 219 =$ _____</p> <p>(2) $97 - 34 =$ _____</p> <p>(3) $202 \times 4 =$ _____</p> <p>(4) $2020 \div 5 =$ _____</p> <p>(5) $11 \times 15 =$ _____</p> <p>(6) $132 \div 12 =$ _____</p> <p>(7) $219 + 220 =$ _____</p> <p>(8) $19 \times 5 \times 4 =$ _____</p> <p>(9) Which digit is in the ten-thousandths place in 16239.07485 ? _____</p> <p>*(10) $2020 \times 11 - 2020 =$ _____</p> <p>(11) $14 \times 16 =$ _____</p> <p>(12) $9 \times 12 - 12 \times 6 =$ _____</p> <p>(13) 13764.08256 rounded to the hundredths place is _____</p> <p>(14) DLV = _____ (Arabic numeral)</p> <p>(15) There are _____ even numbers between 4 and 16.</p> <p>(16) $25 \times 14 =$ _____</p> <p>(17) $7 \times 10^2 + 4 \times 10^{-1} + 3 \times 10^{-2} =$ _____ (decimal)</p> <p>(18) $21 \times 101 =$ _____</p> <p>(19) $4192 \div 5$ has a remainder of _____</p> | <p>*(20) $192034 \div 248 =$ _____</p> <p>(21) $121 \times 50 =$ _____</p> <p>(22) $\frac{17}{20} - \frac{11}{20} =$ _____ (common fraction)</p> <p>(23) $2\frac{1}{2}$ feet = _____ inches</p> <p>(24) $12 \div 4 \times 2 =$ _____</p> <p>(25) $\frac{3}{50} =$ _____ decimal</p> <p>(26) Which is larger: $\frac{9}{14}$ or $\frac{2}{3}$? _____</p> <p>(27) $75 \times 24 =$ _____</p> <p>(28) 55 percent = _____ (common fraction)</p> <p>(29) The sum of the two smallest prime numbers is _____</p> <p>*(30) $555 \times 1790 + 202 =$ _____</p> <p>(31) $7\frac{1}{2}\%$ = _____ (common fraction)</p> <p>(32) The sum of the prime factors of 70 is _____</p> <p>(33) $\frac{7}{20} + \frac{11}{20} =$ _____ (common fraction)</p> <p>(34) $\frac{13}{10} - \frac{26}{100} =$ _____ (common fraction)</p> <p>(35) Four is to seven as twenty-four is to n. n = _____</p> <p>(36) If 18 ♠ cost 75¢, then 6 ♠ cost _____¢</p> <p>(37) The least common multiple of 36 and 24 is _____</p> |
|--|--|

- (38) $125 \times 40 =$ _____
- (39) $(25 \times 25 \times 25) \div 8$ has a remainder of _____
- *(40) $6\frac{1}{4} \times 31980 =$ _____
- (41) If $z = 4.5$, then $20 - 4z =$ _____
- (42) $\frac{2}{3} - \frac{1}{6} =$ _____ (common fraction)
- (43) A number, x , added to 11 equals 15. What is x ?

- (44) The area of a rectangle is 288 and the length of one side is 72. The length of the other side is _____
- (45) 72 inches = _____ feet
- (46) $21^2 =$ _____
- (47) $6\frac{1}{4} - 4\frac{1}{2} =$ _____ (mixed number)
- (48) 37 (Base 8) = _____ Base 2
- (49) What is the number, k , in the sequence:
1, 1, 2, k , 5, 8, . . . ? _____
- *(50) $49^4 \div 24^2 =$ _____
- (51) $2 \times 1\frac{1}{4} + \frac{1}{2} =$ _____
- (52) $102 \times 103 =$ _____
- (53) $\frac{9}{11} + \frac{11}{9} =$ _____ (mixed number)
- (54) If set $A = \{B, E, A, U, M, O, N, T\}$ and set $B = \{T, E, X, L, I, N, E\}$, then the number of elements in $A \cap B$ is _____
- (55) If three times a number added to 9 is the same as 24, then the number is _____
- (56) $44 \times 37 \div 4 =$ _____
- (57) If $5x - 18 = 102$, then $x =$ _____
- (58) What is the volume of a rectangular box with sides, 25 cm, 12 cm and 5 cm? _____ cm^3
- (59) A circle has a circumference of 20π . What is the circle's radius? _____
- *(60) $\sqrt{231361} =$ _____
- (61) $(16) + (-6) \div (-2) =$ _____
- (62) $14^2 - 9^2 =$ _____
- (63) $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} =$ _____
- (64) The number of edges on a cube is _____
- (65) $4^2 + 12^2 =$ _____
- (66) If a pair of dice is thrown, the probability that the sum of the dice is a multiple of 2 is _____
- (67) If the largest angle of an isosceles triangle is 140° , what is the measure of one of the other angles? _____ $^\circ$
- (68) $\sqrt{169} + \sqrt{225} =$ _____
- (69) 123 (Base 5) = _____ (Base 10)
- *(70) $175^2 =$ _____
- (71) $88 \times \left(\frac{1}{8} + \frac{3}{8}\right) =$ _____
- (72) The perimeter of an equilateral triangle is $3\frac{3}{4}$.
What is the length of one side? _____
- (73) Twenty-five quarters = \$ _____
- (74) If $18 + 3x > 12$, then $x >$ _____
- (75) $160 \times 12 =$ _____
- (76) If a black bag contains 12 blue, 8 red, and 16 green marbles, what is the probability of randomly drawing a red marble? _____
- (77) $44\frac{4}{9}\%$ of 36 is _____
- (78) If the angles of a quadrilateral are 15° , 143° , and 82° , what is the measure of the fourth angle? _____ $^\circ$
- (79) $208 \times 15 =$ _____
- *(80) $225 \times 202 \times 98 =$ _____

2019 – 2020 University Interscholastic League Elementary Number Sense Test A – Key

(1) 421	*(20) 736 – 813	(38) 5000	*(60) 457 – 505
(2) 63	(21) 6050	(39) 1	(61) 19
(3) 808	(22) $\frac{3}{10}$	*(40) 189882 – 209868	(62) 115
(4) 404	(23) 30	(41) 2	(63) $1\frac{1}{12}; \frac{13}{12}$
(5) 165	(24) 6	(42) $\frac{1}{2}$	(64) 12
(6) 11	(25) .06	(43) 4	(65) 160
(7) 439	(26) $\frac{2}{3}$	(44) 4	(66) $\frac{1}{2}; .5$
(8) 380	(27) 1800	(45) 6	(67) 20
(9) 8	(28) $\frac{11}{20}$	(46) 441	(68) 28
*(10) 19190 – 21210	(29) 5	(47) $1\frac{3}{4}$	(69) 38
(11) 224	*(30) 943970 – 1043334	(48) 11111	*(70) 29094 – 32156
(12) 36	(31) $\frac{3}{40}$	(49) 3	(71) 44
(13) 13764.08; $13764\frac{2}{25};$ $\frac{344102}{25}$	(32) 14	*(50) 9508 – 10508	(72) $1\frac{1}{4}; \frac{5}{4}; 1.25$
(14) 555	(33) $\frac{9}{10}$	(51) 3	(73) 6.25
(15) 5	(34) $\frac{26}{25}$	(52) 10506	(74) -2
(16) 350	(35) 42	(53) $2\frac{4}{99}$	(75) 1920
(17) 700.43	(36) 25	(54) 3	(76) $\frac{2}{9}$
(18) 2121	(37) 72	(55) 5	(77) 16
(19) 2		(56) 407	(78) 120
		(57) 24	(79) 3120
		(58) 1500	*(80) 4231395 –
		(59) 10	4676805

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
2019 – 2020 Elementary Number Sense Test B

Contestant's Number _____

Final		
2 nd		
1 st		
	Score	Initials

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- | | |
|--|--|
| <p>(1) $22 + 21 =$ _____</p> <p>(2) $69 - 48 =$ _____</p> <p>(3) $2020 \div 10 =$ _____</p> <p>(4) $212 \times 3 =$ _____</p> <p>(5) $307 - 79 =$ _____</p> <p>(6) $132 \div 6 =$ _____</p> <p>(7) $21 + 22 + 23 =$ _____</p> <p>(8) $28 \times 2 \times 5 =$ _____</p> <p>(9) Which digit is in the thousands place in 12360.97485 ? _____</p> <p>*(10) $2020 \times 25 =$ _____</p> <p>(11) $18 \times 16 =$ _____</p> <p>(12) $19 \times 11 - 11 \times 5 =$ _____</p> <p>(13) 18764.06956 rounded to the hundreds place is _____</p> <p>(14) LXXIV = _____ (Arabic numeral)</p> <p>(15) There are _____ odd numbers between 3 and 28.</p> <p>(16) $16 \times 10^2 + 4 \times 10^1 + 5 \times 10^{-2} =$ _____ (decimal)</p> <p>(17) $83 \times 101 =$ _____</p> <p>(18) $4492 \div 9$ has a remainder of _____</p> <p>(19) $73 \times 25 =$ _____</p> | <p>*(20) $2019 + 2020 + 2021 =$ _____</p> <p>(21) $12.12 \times 50 =$ _____</p> <p>(22) $\frac{9}{24} + \frac{11}{24} =$ _____ (common fraction)</p> <p>(23) $1\frac{1}{2}$ yards = _____ inches</p> <p>(24) $24 \div 8 \times 4 =$ _____</p> <p>(25) $\frac{7}{50} =$ _____ decimal</p> <p>(26) Which is smaller: $\frac{11}{15}$ or $\frac{7}{9}$? _____</p> <p>(27) 65 percent = _____ (common fraction)</p> <p>(28) $175 \times 4 =$ _____</p> <p>(29) The smallest prime greater than 90 is _____</p> <p>*(30) $167 \times 1209 + 499 =$ _____</p> <p>(31) $4\frac{2}{3}\%$ = _____ (common fraction)</p> <p>(32) The number of unique prime factors of 100 is _____</p> <p>(33) $\frac{17}{24} - \frac{5}{24} =$ _____ (common fraction)</p> <p>(34) $\frac{3}{10} - \frac{15}{100} =$ _____ (common fraction)</p> <p>(35) Twelve is to seven as twenty-four is to n. n = _____</p> <p>(36) If 8 ♠ cost 72¢, then 24 ♠ cost _____¢</p> <p>(37) The least common multiple of 40 and 24 is _____</p> |
|--|--|

- (38) $(15 \times 20 \times 30) \div 7$ has a remainder of _____
- (39) $225 \times 40 =$ _____
- *(40) $29880 \div 6\frac{1}{4} =$ _____
- (41) If $z = 6.5$, then $16 + 4z =$ _____
- (42) $\frac{3}{4} - \frac{5}{8} =$ _____ (common fraction)
- (43) A number, x , added to 9 equals 33. What is x ?

- (44) The area of a rectangle is 350 and the length of one side is 25. The length of the other side is _____
- (45) 72 inches = _____ yards
- (46) $23^2 =$ _____
- (47) $8\frac{3}{8} + 4\frac{3}{4} =$ _____ (mixed number)
- (48) 123 (Base 8) = _____ Base 10
- (49) What is the number, k , in the sequence:
0, 3, 8, k , 24, 35, . . . ? _____
- *(50) $24^4 \div 9^2 =$ _____
- (51) $16 \times 1\frac{1}{4} - \frac{1}{2} =$ _____
- (52) $92 \times 93 =$ _____
- (53) $\frac{5}{9} + \frac{9}{5} =$ _____ (mixed number)
- (54) If set $A = \{N, C, A, A\}$ and set $B = \{U, I, L\}$, then the number of elements in $A \cup B$ is _____
- (55) If 48 is subtracted from three times a number, the result is 24. The number is _____
- (56) $105 \times 12 \div 5 =$ _____
- (57) If $3x + 17 = 98$, then $x =$ _____
- (58) What is the volume of a rectangular box with sides 24 cm, 24 cm and 10 cm? _____ cm^3
- (59) A circle has an area of 36π . What is the circle's diameter? _____
- *(60) $\sqrt{366025} =$ _____
- (61) $(12) - (-30) \div (-2) =$ _____
- (62) $9^2 - 21^2 =$ _____
- (63) $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} =$ _____
- (64) The area of an isosceles triangle with sides 5, 5, and 8 is _____
- (65) $19^2 + 57^2 =$ _____
- (66) If a pair of dice is thrown, the probability that the sum of the dice is an even number is _____
- (67) If the largest angle of an isosceles triangle is 102° , what is the measure of one of the other angles? _____ $^\circ$
- (68) $\sqrt{289} - \sqrt{196} =$ _____
- (69) 49 (Base 10) = _____ (Base 4)
- *(70) $245^2 =$ _____
- (71) $24 \times \left(\frac{5}{8} - \frac{1}{4}\right) =$ _____
- (72) The perimeter of a regular pentagon is $3\frac{3}{5}$. What is the length of one side? _____
- (73) \$4.25 = _____ quarters
- (74) If $24 + 3x > 21$, then $x >$ _____
- (75) $12 \times 240 =$ _____
- (76) If a black bag contains 8 blue, 12 red, and 16 green marbles, what is the probability of randomly drawing a green marble? _____
- (77) $22\frac{2}{9}\%$ of 18 is _____
- (78) If the angles of a quadrilateral are 45° , 103° , and 62° , what is the measure of the fourth angle? _____ $^\circ$
- (79) $420 \times 15 =$ _____
- *(80) $101 \times 201 \times 89 =$ _____

2019 – 2020 University Interscholastic League Elementary Number Sense Test B – Key

(1) 43	*(20) 5757 – 6363	(38) 5	*(60) 575 – 635
(2) 21	(21) 606	(39) 9000	(61) -3
(3) 202	(22) $\frac{5}{6}$	*(40) 4542 – 5019	(62) -360
(4) 636	(23) 54	(41) 42	(63) $\frac{7}{8}$; .875
(5) 228	(24) 12	(42) $\frac{1}{8}$	(64) 12
(6) 22	(25) .14	(43) 24	(65) 3610
(7) 66	(26) $\frac{11}{15}$	(44) 14	(66) $\frac{1}{2}$; .5
(8) 280	(27) $\frac{13}{20}$	(45) 2	(67) 39
(9) 2	(28) 700	(46) 529	(68) 3
*(10) 47975 – 53025	(29) 97	(47) $13\frac{1}{8}$	(69) 301
(11) 288	*(30) 192282 – 212522	(48) 83	*(70) 57024 – 63026
(12) 154	(31) $\frac{7}{150}$	(49) 15	(71) 9
(13) 18800	(32) 2	*(50) 3892 – 4300	(72) $\frac{18}{25}$; .72
(14) 74	(33) $\frac{1}{2}$	(51) $19\frac{1}{2}$; 19.5; $\frac{39}{2}$	(73) 17
(15) 12	(34) $\frac{3}{20}$	(52) 8556	(74) -1
(16) 1640.05	(35) 14	(53) $2\frac{16}{45}$	(75) 2880
(17) 8383	(36) 216	(54) 6	(76) $\frac{4}{9}$
(18) 1	(37) 120	(55) 24	(77) 4
(19) 1825		(56) 252	(78) 150
		(57) 27	(79) 6300
		(58) 5760	*(80) 1716450 –
		(59) 12	1897128

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
2019 – 2020 Elementary Number Sense Test C**

Contestant's Number _____

Final		
2 nd		
1 st		
	Score	Initials

**Read Directions Carefully
Before Beginning Test**

**Do Not Unfold This Sheet
Until Told to Begin**

Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. **ALL PROBLEMS ARE TO BE SOLVED MENTALLY.** Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.

Stop – Wait for Signal!

- | | |
|--|---|
| <p>(1) $31 + 46 =$ _____</p> <p>(2) $77 - 25 =$ _____</p> <p>(3) $2020 \div 20 =$ _____</p> <p>(4) $321 \times 3 =$ _____</p> <p>(5) $218 - 69 =$ _____</p> <p>(6) $132 \div 4 =$ _____</p> <p>(7) $19 + 22 + 25 =$ _____</p> <p>(8) $34 \times 2 \times 5 =$ _____</p> <p>(9) Which digit is in the thousandths place in 12360.97485 ? _____</p> <p>*(10) $2020 \times 249 =$ _____</p> <p>(11) $22 \times 18 =$ _____</p> <p>(12) $24 \times 11 - 11 \times 6 =$ _____</p> <p>(13) 18764.06956 rounded to the thousands place is _____</p> <p>(14) CLXIV = _____ (Arabic numeral)</p> <p>(15) There are _____ odd numbers between 5 and 32.</p> <p>(16) $23 \times 10^2 + 5 \times 10^1 + 5 \times 10^{-1} =$ _____ (decimal)</p> <p>(17) $48 \times 101 =$ _____</p> <p>(18) $8291 \div 9$ has a remainder of _____</p> <p>(19) $53 \times 25 =$ _____</p> | <p>*(20) $2017 + 2020 + 2023 =$ _____</p> <p>(21) $16.16 \times 50 =$ _____</p> <p>(22) $\frac{11}{24} + \frac{7}{24} =$ _____ (common fraction)</p> <p>(23) $1 \frac{1}{4}$ yards = _____ inches</p> <p>(24) $20 \div 8 \times 4 =$ _____</p> <p>(25) $\frac{19}{50} =$ _____ decimal</p> <p>(26) Which is smaller: $\frac{13}{15}$ or $\frac{7}{8}$? _____</p> <p>(27) 72 percent = _____ (common fraction)</p> <p>(28) $175 \times 16 =$ _____</p> <p>(29) The smallest prime greater than 80 is _____</p> <p>*(30) $167 \times 2390 + 499 =$ _____</p> <p>(31) $3 \frac{1}{3} \% =$ _____ (common fraction)</p> <p>(32) The number of unique prime factors of 90 is _____</p> <p>(33) $\frac{23}{24} - \frac{5}{24} =$ _____ (common fraction)</p> <p>(34) $\frac{15}{100} - \frac{1}{10} =$ _____ (common fraction)</p> <p>(35) Twelve is to eight as eighteen is to n. n = _____</p> <p>(36) If 12 ♠ cost 72¢, then 8 ♠ cost _____¢</p> <p>(37) The least common multiple of 36 and 30 is _____</p> |
|--|---|

- (38) $(17 \times 16 \times 15) \div 7$ has a remainder of _____
- (39) $225 \times 80 =$ _____
- *(40) $10180 \div 6\frac{1}{4} =$ _____
- (41) If $z = 3.5$, then $14 + 4z =$ _____
- (42) $\frac{11}{12} - \frac{1}{4} =$ _____ (common fraction)
- (43) A number, x , added to 12 equals 30. What is x ?

- (44) The area of a rectangle is 200 and the length of one side is 25. The length of the other side is _____
- (45) 108 inches = _____ yards
- (46) $24^2 =$ _____
- (47) $12\frac{5}{6} + 3\frac{3}{4} =$ _____ (mixed number)
- (48) 134 (Base 8) = _____ Base 10
- (49) What is the number, k , in the sequence:
0, 3, 8, 15, k , 35, 48, ...? _____
- *(50) $12^4 \div 3^3 =$ _____
- (51) $16 \times 1\frac{3}{4} - \frac{1}{2} =$ _____
- (52) $95 \times 96 =$ _____
- (53) $\frac{6}{11} + \frac{11}{6} =$ _____ (mixed number)
- (54) If set $A = \{C, H, E, R, R, Y\}$ and set $B = \{P, I, E\}$,
then the number of elements in $A \cup B$ is _____
- (55) If 28 is subtracted from three times a number, the
result is 20. The number is _____
- (56) $65 \times 12 \div 5 =$ _____
- (57) If $3x + 24 = 36$, then $x =$ _____
- (58) What is the volume of a rectangular box with sides
20 cm, 24 cm and 10 cm? _____ cm^3
- (59) A circle has an area of 64π . What is the circle's
diameter? _____
- *(60) $\sqrt{265225} =$ _____
- (61) $(32) - (-28) \div (-2) =$ _____
- (62) $8^2 - 22^2 =$ _____
- (63) $\frac{1}{3} + \frac{1}{6} + \frac{1}{9} =$ _____
- (64) The area of an isosceles triangle with sides 10, 10,
and 16 is _____
- (65) $21^2 + 63^2 =$ _____
- (66) If a pair of dice is thrown, the probability that the
sum of the dice is an odd number is _____
- (67) If the largest angle of an isosceles triangle is 112° ,
what is the measure of one of the other angles? _____ $^\circ$
- (68) $\sqrt{225} - \sqrt{361} =$ _____
- (69) 49 (Base 10) = _____ (Base 6)
- *(70) $235^2 =$ _____
- (71) $24 \times \left(\frac{5}{8} - \frac{1}{2}\right) =$ _____
- (72) The perimeter of a regular hexagon is $3\frac{1}{2}$. What is
the length of one side? _____
- (73) \$6.75 = _____ quarters
- (74) If $40 + 3x > 1$, then $x >$ _____
- (75) $12 \times 120 =$ _____
- (76) If a black bag contains 8 blue, 13 red, and 15 green
marbles, what is the probability of randomly drawing
a green marble? _____
- (77) $22\frac{2}{9}\%$ of 27 is _____
- (78) If the angles of a quadrilateral are 90° , 57° , and 63° ,
what is the measure of the fourth angle? _____ $^\circ$
- (79) $240 \times 15 =$ _____
- *(80) $303 \times 201 \times 89 =$ _____

2019 – 2020 University Interscholastic League Elementary Number Sense Test C – Key

(1) 77	*(20) 5757 – 6363	(38) 6	*(60) 490 – 540
(2) 52	(21) 808	(39) 18000	(61) 18
(3) 101	(22) $\frac{3}{4}$	*(40) 1548 – 1710	(62) -420
(4) 963	(23) 45	(41) 28	(63) $\frac{11}{18}$
(5) 149	(24) 10	(42) $\frac{2}{3}$	(64) 48
(6) 33	(25) .38	(43) 18	(65) 4410
(7) 66	(26) $\frac{13}{15}$	(44) 8	(66) $\frac{1}{2}$; .5
(8) 340	(27) $\frac{18}{25}$	(45) 3	(67) 34
(9) 4	(28) 2800	(46) 576	(68) -4
*(10) 477831 – 528129	(29) 83	(47) $16\frac{7}{12}$	(69) 121
(11) 396	*(30) 379648 – 419610	(48) 92	*(70) 52464 – 57986
(12) 198	(31) $\frac{1}{30}$	(49) 24	(71) 3
(13) 19000	(32) 3	*(50) 730 – 806	(72) $\frac{7}{12}$
(14) 164	(33) $\frac{3}{4}$	(51) $27\frac{1}{2}$; 27.5; $\frac{55}{2}$	(73) 27
(15) 13	(34) $\frac{1}{20}$	(52) 9120	(74) -13
(16) 2350.5	(35) 12	(53) $2\frac{25}{66}$	(75) 1440
(17) 4848	(36) 48	(54) 7	(76) $\frac{5}{12}$
(18) 2	(37) 180	(55) 16	(77) 6
(19) 1325		(56) 156	(78) 150
		(57) 4	(79) 3600
		(58) 4800	*(80) 5149349 –
		(59) 16	5691385

Note: *(Number) $x - y$ means an integer between x and y inclusive.
 If an answer is of the type like $\frac{2}{3}$ it cannot be written as .666... or $\overline{.6}$.

Contestant Number _____

Contestant Name _____
 (to be filled in after judging)

UIL A+ Ready Writing Evaluation Sheet: Elementary, Middle School, and Junior High

Evaluation criteria are listed in the order of importance. Write the number that indicates the quality in each of the sub-areas and tally the points.

(50%) _____/100

INTEREST: Writing exhibits originality of thought, analytical acuteness and overall coherence of exposition.

	<u>POOR</u>	<u>FAIR</u>	<u>GOOD</u>	<u>EXCELLENT</u>
Perceptive ideas	_____/7	_____/13	_____/19	_____/25
Originality	_____/7	_____/13	_____/19	_____/25
Examples	_____/7	_____/13	_____/19	_____/25
Title	_____/7	_____/13	_____/19	_____/25

(35%) _____/70

ORGANIZATION: Each paragraph develops one idea and contributes to an understanding of main idea or thesis.

	<u>POOR</u>	<u>FAIR</u>	<u>GOOD</u>	<u>EXCELLENT</u>
Clear thesis	_____/3	_____/7	_____/11	_____/14
Well-developed paragraphs, focused on one idea	_____/3	_____/7	_____/11	_____/14
Transition	_____/3	_____/7	_____/11	_____/14
Thesis support	_____/3	_____/7	_____/11	_____/14
Composition clarity (as a whole)	_____/3	_____/7	_____/11	_____/14

(15%) _____/30

CORRECTNESS OF STYLE: Writing avoids errors in sentence structure, punctuation, grammar, word usage and spelling that hinder clear communication.

	<u>POOR</u>	<u>FAIR</u>	<u>GOOD</u>	<u>EXCELLENT</u>
Punctuation	_____/1	_____/3	_____/5	_____/6
Sentence structure	_____/1	_____/3	_____/5	_____/6
Grammar	_____/1	_____/3	_____/5	_____/6
Word Usage	_____/1	_____/3	_____/5	_____/6
Spelling	_____/1	_____/3	_____/5	_____/6

TOTAL SCORE: _____/200

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:

Please read "Instructions for the Judges" for Ready Writing Writing before evaluating contestants' papers. While judges are to consider all three elements in selecting the most effective compositions, they should weigh interest more than organization, and organization more than correctness of style.

AREAS NEEDING IMPROVEMENT:

Judge's signature _____



A+ Ready Writing **for Elementary, Middle School, and Junior High**

Instructions for the Judges

Instructions

At some convenient time before the contest begins, the director shall discuss with the judges the criteria for evaluating the stories, making sure that they all have the same conception of those criteria and understand the relative importance to be accorded each. Each judge shall be given a copy of the evaluation sheet provided by the UIL. Judges should also read the Ready Writing topic sheets the contestants were given.

Criteria

The essays are to be evaluated as to relative excellence in interest (50%), organization (35%), and correctness of style (15%). Please make comments constructive and supportive. While judges are to consider all three elements in selecting the most effective stories, more weight should be given to interest than to organization, and to organization more than to correctness of style.

- (A) Interest depends primarily on perceptive ideas. It depends next upon originality and including specific examples, which individualize the story as an outgrowth of the writer's voice. The effectiveness of the title is also considered.
- (B) A well-organized story will present a clear thesis with well-developed paragraphs focused on the thesis. The use of transitions will also be examined as well as the effectiveness of support for the thesis. As a whole, the composition should be considered for clarity.
- (C) Grammatical correctness of style includes an examination of punctuation, sentence structure, grammar, word usage, and spelling.

Completing Evaluation Sheets

Before the results are announced, the judges shall prepare a written evaluation of each essay stating its good points and areas that could be improved. Comments need not be long, but they should be specific rather than general.

Rating the compositions

Judges should read the essays submitted and without marking on the essays, rank the essays in order of excellence: 1, 2, 3, 4, etc. Comments should be made on the evaluation sheets provided. The judges shall discuss the essays contending for a place, being permitted to alter their rankings as a result of the discussion. Judges are to reach a consensus on the rankings. There can be no ties in this contest.



2019-20 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Pen Pals*

Imagine that your class is getting pen pals from another country. Write a letter to your pen pal describing what your typical day and school life are like. Remember not to include your actual name or the name of your school.

Topic: *Favorite Food*

Think about your favorite food to eat. Would you rather only eat that food all year long or not be able to eat that food for three years? Write an essay explaining your opinion.



2019-20 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Compromise*

It is important to be able to work well with others and to be able to find common ground. Write about a time when you sacrificed something you wanted to achieve compromise.

Topic: *Lost*

Write a story about a character searching for something that he or she lost. Make sure to develop your character and include details throughout the story.



2019-20 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Your Superpower*

"With great power comes great responsibility." This quote was made popular in the Spiderman comics. In an essay, choose a superpower and write about how you would use your superpower for good.

Topic: *The Lost Treasure*

Write a story about finding lost treasure. Be creative about your story and make sure to include interesting details.



2019-20 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Failure*

The 26th President, Theodore Roosevelt, said, "It is hard to fail, but it is worse never to have tried to succeed." What do you think this quote means? In an essay, describe how you interpret this quote and use your own life experiences as examples.

Topic: *The Future*

Imagine you somehow woke up one hundred years in the future. Write a story describing what the world looks like and describe what you would do with your life in the future.



2019-20 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Field Trip*

Imagine your teacher is letting your class choose a field trip. However, your classmates can't agree on where to go. Write a letter to the class detailing where you want to go on a field trip and explain to your classmates why they should support your idea. Remember you should not use your real name or that of your school.

Topic: *Family*

Professional tennis player Serena Williams said, "Tennis is just a game, family is forever." Write a paper that describes a time you spent with your family.



2019-20 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Learning*

Leonardo da Vinci stated that, "learning never exhausts the mind." Explain why you believe it is important to continue learning even if you are not being required to learn the topic.

Topic: *Uncertainty*

Think about a time when you were unsure about the next step you should take. In an essay, describe your experience and what you learned from it.

CONTESTANT NUMBER:

FOR GRADER USE ONLY

Score Test Below:

_____ Initials _____

_____ Initials _____

Papers contending to place:

_____ Initials _____



**University Interscholastic League
A+ Social Studies Contest • Answer Sheet**

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

Circle Grade Level: 5 6 7 8

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

INVITATIONAL DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

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

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 5 & 6**

1. Which nation sent Christopher Columbus in 1492 to search for a new route to the Indies, a part of Asia rich with gold, spices, and other goods?
 - a. Portugal
 - b. Spain
 - c. Russia
 - d. Italy

2. Who sent an English sea captain to the Americas in 1609 in search of the Northwest Passage?
 - a. Swiss
 - b. Chinese
 - c. Dutch
 - d. Egyptian

3. Where was the first permanent English colony settled in North America?
 - a. New York
 - b. Richmond
 - c. San Antonio
 - d. Jamestown

4. William Penn named the main settlement in Pennsylvania, _____, which means “the city of brotherly love”.
 - a. Philadelphia
 - b. Boston
 - c. Hartford
 - d. Providence

5. Who was the Puritan leader banished from Massachusetts for her religious views?
 - a. Mary Harris Jones
 - b. Mercy Otis Warren
 - c. Anne Hutchinson
 - d. Amelia Earhart

6. _____ is an American clergyman and pamphleteer who greatly influenced American ecclesiastical law and the struggle for civil and religious liberty in the colonies.
 - a. John Wise
 - b. Marcus Whitman
 - c. Samuel Slater
 - d. James Marshall

Spanish Exploration

1565	1610	1680	1718
?	Spanish establish Santa Fe, New Mexico	Pueblo revolt begins	Spanish establish San Antonio, Texas

7. What event finishes the timeline?
 - a. Ft. Necessity is built to protect the missions
 - b. Spanish establish St. Augustine, Florida
 - c. Los Angeles is established in California
 - d. Spanish build a road called El Camino Real

8. Which nation sent the explorers Vasco Nunez de Balboa, Hernando de Soto and Juan Ponce de Leon to the Americas in the 1500s?
- a. England
 - b. France
 - c. Netherlands
 - d. Spain
9. What products were important to the colonial New England economy?
- a. Timber and fishing
 - b. Farm products and minerals
 - c. Farm products such as tobacco, rice and indigo
 - d. Manufactured goods
10. In colonial America, who made barrels from wood and iron?
- a. Blacksmith
 - b. Cooper
 - c. Miller
 - d. Fisherman
11. How did the New England and Middle Colonies demonstrate the free enterprise system?
- a. The government owned all the businesses and land
 - b. Businesses could sell only to certain countries
 - c. Prices and varieties of goods made are determined by the government
 - d. People bought and sold goods in marketplaces without the government regulating what they could buy and sell or the prices of most goods
12. Many New England Colonies were self-sufficient. What does self-sufficient mean?
- a. Method of mass production in which the product is put together as it moves past a line of workers
 - b. Way of life of a group of people
 - c. They relied on themselves for most of what they needed
 - d. Unfair negative opinion about a group of people
13. When was the Mayflower Compact signed?
- a. July, 1630
 - b. November, 1620
 - c. Thanksgiving, 1621
 - d. January, 1636
14. What was the Fundamental Orders of Connecticut?
- a. A set of laws that were established by a Puritan congregation and expanded the idea of representative government
 - b. The first formal proposal to unite the American colonies
 - c. A law that distributed reservation land to individual owners
 - d. A law that raised the tariffs on raw materials and manufactured goods



15. Who is this current national leader?
- a. Joe Biden
 - b. Dick Cheney
 - c. Al Gore
 - d. Mike Pence
16. _____ currently serves as the Speaker of the U.S. House of Representatives.
- a. Mitch McConnell
 - b. Chuck Grassley
 - c. Nancy Pelosi
 - d. Ted Cruz
17. Where were the colonists told would be the safest place to settle in the New World?
- a. A hundred miles from the river's mouth
 - b. As close to the mouth of the river as possible
 - c. On top of the highest peak on the coast
 - d. On the most level land within ten miles of the coast
18. How were the colonists told to interact with the natives?
- a. Get their help to treat the sick
 - b. Trade weapons with them
 - c. Cohabitate with them
 - d. Trade with them for corn
19. Why did the Pilgrims not settle near the Hudson River, as originally intended?
- a. Warrior natives on the shore
 - b. Dangerous shoals and a near shipwreck on their attempt to head south
 - c. The land was not fertile enough
 - d. Low tides and sheltered bays
20. _____ is the formal permission from the Council of New England given to the Pilgrims to settle in the New World.
- a. Monroe Doctrine
 - b. Taylor Patent in 1621
 - c. Pierce Patent in 1621
 - d. Albany Plan of Union
21. What do Myles Standish, John Alden, Stephen Hopkins and Christopher Martin have in common?
- a. Signers of the Mayflower Compact
 - b. Members of the Council of New England
 - c. Leaders of the Revolutionary Army
 - d. Governors of the Colonies in the New World

22. A _____ was to serve as the leader of the Massachusetts Bay colony.
- a. President
 - b. Chancellor
 - c. Pope
 - d. Governor
23. What is the Cambridge Agreement?
- a. First ten amendments to the Constitution
 - b. Proposal that each state should have the same number of representatives in Congress
 - c. Pledge in which the Puritans stipulated that they would both migrate to the New World and carry the charter with them
 - d. Laws passed that taxed goods imported by the 13 Colonies from Britain
24. How often were officers elected in the Massachusetts Bay Colony?
- a. At the beginning of each meeting
 - b. Yearly
 - c. Every two years
 - d. Permanently elected

Workers in Mexico → Parts from the U.S. → Finished goods to U.S. and Canada

25. What interdependent economic relationship is this an example?
- a. Communism
 - b. Service industry
 - c. Feudalism
 - d. Globalization
26. Who is an entrepreneur?
- a. Nomadic Arab of the deserts of Southwest Asia
 - b. Latin American farmer or farm laborer
 - c. Person who starts a new business, hoping to make a profit
 - d. Scientist who studies the interaction of people and society
27. _____ is a wealthy country, partly because of oil and natural gas pumped from beneath the North Sea.
- a. Norway
 - b. Zimbabwe
 - c. Italy
 - d. Australia
28. Because no part of the nation is more than 85 miles from the sea, which nation still has one of the largest shipping fleets in the world?
- a. Switzerland
 - b. Greece
 - c. Poland
 - d. Nigeria
29. What type of economy is sometimes called a “free enterprise system”?
- a. Traditional
 - b. Command
 - c. Market
 - d. Cottage
30. Where does the United States economic system have its roots?
- a. Europe
 - b. Africa
 - c. Asia
 - d. Antarctica

31. What type of government is defined as where, through law, some control is placed on leadership's powers?
- Capitalism
 - Limited government
 - Imperialism
 - Unlimited government
32. What category do both Democracies and Constitutional Monarchies fall under?
- Polytheistic
 - Hieroglyphics
 - Unlimited government
 - Limited government
33. In a _____ kings and queens are born into ruling families, their power is inherited and unlimited.
- Direct democracy
 - Welfare state
 - Absolute monarchy
 - Township
- Attending school so that we will be informed and effective citizens
 - Obeying school rules and local laws
 - Serving on juries
34. What are these actions examples of in the United States?
- Rights
 - Indulgencies
 - Pardons
 - Responsibilities
35. Why did European traders feel they needed a different route to Asia?
- Routes were long and dangerous
 - Too many towns along the route
 - Cheap fuel costs
 - Route too crowded
36. Which Spanish explorer drew the first maps of the Texas coastline?
- Hernando Cortez
 - Alonso Alvarez de Pineda
 - Santiago Jimenez
 - Antonio Martin

1492	1528	1540	1685
Columbus lands In the Americas	?	Coronado searches for Cibola	La Salle built a fort in Texas

37. What event finishes the timeline?
- Martin de Leon founded the town of Victoria
 - The first Europeans explorer the California coast
 - Mexican priest calls for a government fair to all people
 - Cabeza de Vaca reaches Texas
38. How did Father Hidalgo lead to a revolution by teaching the people of Dolores to grow olives and grapes?
- Spain feared France would sell crops to them
 - England offered crops at a cheaper rate than they could grow them
 - Spanish leaders wanted Mexicans to buy olives and grapes from them
 - Germany wanted Mexicans to buy from them

39. Where did Stephen F. Austin locate his colony?
- a. Between the Colorado and Brazos Rivers
 - b. In East Texas
 - c. Along the Sabine River
 - d. On the barrier islands along the Texas coast
40. Why is March 2 important in Texas history?
- a. Santa Anna agrees to end fighting against Spain
 - b. Texas declares its independence from Mexico
 - c. Texas becomes a state
 - d. Last battle of Civil War

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
INVITATIONAL TEST — GRADES 5 & 6**

Answer Key

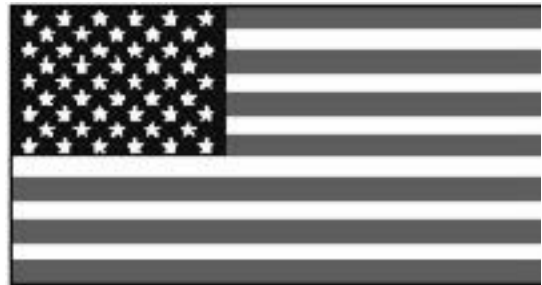
- | | |
|-------|-------|
| 1. B | 21. A |
| 2. C | 22. D |
| 3. D | 23. C |
| 4. A | 24. B |
| 5. C | 25. D |
| 6. A | 26. C |
| 7. B | 27. A |
| 8. D | 28. B |
| 9. A | 29. C |
| 10. B | 30. A |
| 11. D | 31. B |
| 12. C | 32. D |
| 13. B | 33. C |
| 14. A | 34. D |
| 15. D | 35. A |
| 16. C | 36.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

FALL/WINTER DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

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

UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 5 & 6

1. Which nation conquered the Aztecs in 1521 and the Incas in 1533?
 - a. Brazil
 - b. Switzerland
 - c. Spain
 - d. Portugal

2. What nation sent an expedition to find the Northwest Passage, a waterway connecting the Atlantic and Pacific Oceans?
 - a. Italy
 - b. France
 - c. Egypt
 - d. China

3. Which group came to the Americas because they faced persecution for wanting to separate from the Church of England?
 - a. Apprentices
 - b. Pioneers
 - c. Federalists
 - d. Pilgrims

4. What town did the Dutch build so they could control the trade on the Hudson River?
 - a. New Amsterdam
 - b. Savannah
 - c. Plymouth
 - d. New Orleans

5. Puritans named their main settlement, _____.
 - a. Saint Augustine
 - b. Boston
 - c. Galveston
 - d. Concord

6. Which Quaker founded the colony of Pennsylvania?
 - a. John Rolfe
 - b. Daniel Webster
 - c. Benjamin Rush
 - d. William Penn

7. Who was chosen to be the leader of the Jamestown Colony?
 - a. John Smith
 - b. Eli Whitney
 - c. Samuel Morse
 - d. John Parker

8. _____ was the French explorer who founded Quebec, the first permanent French settlement in North America.
 - a. Thomas Gage
 - b. Vasco da Gama
 - c. Samuel de Champlain
 - d. Peter Salem

1607	Jamestown established
1609	Henry Hudson explored for the Dutch
1681	Pennsylvania colony is founded
1733	?

9. Which event finishes the timeline?
- Puritans founded the Massachusetts Bay Colony
 - Rhode Island is established
 - Anne Hutchinson is forced to leave Massachusetts because of her beliefs
 - Georgia is founded
10. What group of colonies had an economy based on farm products and valuable minerals?
- New England
 - Middle Colonies
 - Backcountry
 - Southern Colonies
11. Who makes maps and marks boundary lines?
- Surveyor
 - Merchant
 - Miller
 - Blacksmith

-
- **Economic freedom**
 - **Voluntary exchange**
 - **Private property**
 - **Profit motive**

12. What economic system is described by these four characteristics?
- Communism
 - Socialism
 - Free enterprise
 - Feudalism
13. How did the House of Burgesses impact the colonies?
- Helped establish the tradition of self-government in the English colonies
 - Gave settlers control of all the Native Americans living in the area west of the Mississippi River
 - Warned European nations not to interfere in the Western Hemisphere
 - Promoted peace and ended conflicts
14. When did the first law-making assembly in an English colony meet?
- September, 1620
 - July 30, 1619
 - July 4, 1776
 - Thanksgiving, 1621

15. Who is this current national leader?

- a. Wilbur Ross
- b. Steven Mnuchin
- c. Rick Perry
- d. John Roberts



-
- **Sonny Perdue**
 - **Elaine Chao**
 - **Ben Carson**
 - **Betsy DeVos**

16. What do these four national leaders have in common?

- a. Retired Associates of the Supreme Court
- b. Ambassadors from the United States
- c. Members of the Cabinet
- d. Former Presidents of the United States

17. Which groups were included in the membership of the Massachusetts Bay Company?

- a. Merchants and landed gentry
- b. Farmers and ranchers
- c. Priests and lay leaders
- d. Debtors and Jailors

18. Who was the first Governor of the Massachusetts Bay Colony?

- a. John Ven
- b. Richard Pery
- c. Samuell Vassall
- d. Mathewe Cradocke

19. When did the governing body of the Massachusetts Bay Colony meet?

- a. Every first Monday in Hillary, Easter, Trinity and Michas Termes
- b. Last day of Hillary, Easter, Trinity and Mlchas Termes
- c. Every last Wednesday in Hillary, Easter, Trinity and Michas Termes
- d. First day of Hillary, Easter, Trinity and Michas Termes

20. What was NOT to be one of the first acts of the colonists after planting themselves in the New World?

- a. Prepare and sow corn and roots
- b. Build private homes
- c. Leave a sentinel at the haven's mouth
- d. Fortify and build a storehouse for supplies

21. Why was it suggested to the colonists to make friends with the natives?
- a. A labor source would be needed
 - b. For protection against the French
 - c. To teach them how to build ships
 - d. To be able to trade with them for corn and other food stuff
22. How was it suggested to the colonists to layout their settlement?
- a. Houses set in an even line on a street that opens into the market place
 - b. Farms at least ten miles apart
 - c. Homes were to be at least a mile from the market square
 - d. All were to live on the market square
23. Where did the ship containing the Pilgrims actually land in the New World?
- a. Charlottesville
 - b. Jamestown
 - c. Cape Cod
 - d. Philadelphia
24. When did the Pilgrims sign the Mayflower Compact?
- a. 1519
 - b. 1620
 - c. 1492
 - d. 1607

Jets

High-speed cargo ships

Internet

25. How do these three examples demonstrate the development of a world culture and interdependent world economy today?
- a. Lack of materials
 - b. Aging infrastructure
 - c. Speed in which exchanges take place
 - d. High costs of labor

Myanmar provides about 75% of the world's teakwood but these valuable forests are decreasing because of deforestation.

26. What is deforestation?
- a. Widespread cutting of trees
 - b. Seasonal winds that blow over a continent for months at a time
 - c. Removing salt to make seawater drinkable
 - d. Process by which grasslands change to desert

34. Responsibilities are _____.
a. Benefits and protections guaranteed to you by law
b. Able to speak several languages
c. Great and often violent change
d. Duties that you owe to your fellow citizens to make sure that the government continues
35. What is a major responsibility of democratic citizenship?
a. Peaceful assembly
b. Voting
c. Speak freely
d. Freedom of press
36. Who built a small fort on Garcitas Creek inland from the Texas coast, thus starting the first French colony in Texas?
a. Rene Robert Cavelier, Sieur de La Salle
b. Hernando de Soto
c. Juan de Onate
d. Christopher Columbus
37. Which Spanish explorer, after reaching the Caprock Escarpment, called this vast plain Llano Estacado?
a. Hernando Cortes
b. Francisco Vasquez de Coronado
c. Lorenzo de Zavala
d. Fray Marcos de Niza
38. Who is known as the "Father of Texas"?
a. Martin de Leon
b. Green DeWitt
c. Stephen F. Austin
d. Juan Seguin
39. Which nation heavily influenced culture in early Texas?
a. Switzerland
b. India
c. China
d. Spain
40. When did Texas leaders write a Declaration of Independence from Mexico and sign it?
a. March 2, 1836
b. April 21, 1836
c. July 4, 1776
d. January 10, 1901

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
FALL/WINTER TEST — GRADES 5 & 6**

Answer Key

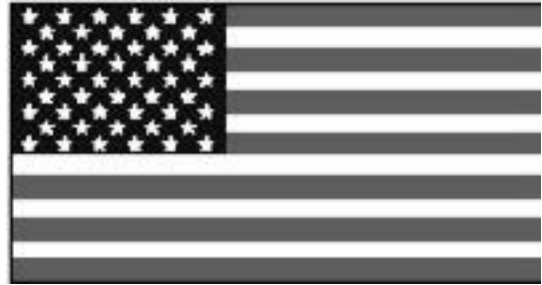
- | | |
|-------|-------|
| 1. C | 21. D |
| 2. B | 22. A |
| 3. D | 23. C |
| 4. A | 24. B |
| 5. B | 25. C |
| 6. D | 26. A |
| 7. A | 27. D |
| 8. C | 28. B |
| 9. D | 29. C |
| 10. B | 30. A |
| 11. A | 31. D |
| 12. C | 32. B |
| 13. A | 33. C |
| 14. B | 34. D |
| 15. D | 35. B |
| 16. C | 36.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

SPRING DISTRICT 2019-2020

A+ ACADEMICS



University Interscholastic League



Social Studies

grades 5 & 6

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

UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
SPRING TEST — GRADES 5 & 6

1. Who sent ships across the Atlantic in search of a new route to the Indies?
 - a. Italy
 - b. Spain
 - c. Netherlands
 - d. Norway

2. Which group wanted to build the colony of Pennsylvania based on their religious belief of opposing war?
 - a. Separatists
 - b. Loyalists
 - c. Quakers
 - d. Progressives

3. What was England's first attempt at a colony in the Americas?
 - a. Los Adaes
 - b. Philadelphia
 - c. San Augustine
 - d. Roanoke

4. When the Pilgrims decided to find a place to settle in New England, they chose a rocky harbor the English called _____.
 - a. Plymouth
 - b. Richmond
 - c. Concord
 - d. New Amsterdam

5. What became the first English colony in North America to offer complete religious freedom to its settlers?
 - a. New York
 - b. Carolina
 - c. Rhode Island
 - d. Georgia

6. Who was the Puritan minister that founded the colony of Connecticut?
 - a. Thomas Hooker
 - b. Ethan Allen
 - c. John Hancock
 - d. Robert Fulton

7. Which Spanish explorer became the first European to reach the Mississippi River?
 - a. Vasco de Gama
 - b. Hernando De Soto
 - c. Juan Ponce de Leon
 - d. Samuel de Champlain

1673	Marquette and Joliet explored the Mississippi River for France
1682	La Salle reached the mouth of the Mississippi and claimed Louisiana for France
1718	?

8. Which event finishes the timeline?
 - a. Baton Rouge became the capital of Louisiana
 - b. New France is established
 - c. Shreveport opened the Red River to trade
 - d. New Orleans was founded and quickly became a busy port

9. What group of colonies was able to develop an economy based on farming because of its rich soil, warm weather and abundant rainfall?
 - a. Southern Colonies
 - b. Backcountry
 - c. New England
 - d. Middle Colonies

10. Which job in colonial America made and repaired iron goods, such as horseshoes, axes, gun parts and nails?
 - a. Shoemaker
 - b. Printer
 - c. Merchant
 - d. Blacksmith

11. What are large farms that usually specialized in growing one kind of crop?
 - a. Homestead
 - b. Plantations
 - c. Tenant farm
 - d. Family farm

12. Where was the first law-making assembly in an English colony?
 - a. New Hampshire
 - b. Rhode Island
 - c. Virginia
 - d. Pennsylvania

13. How was the Mayflower Compact a step toward self-government?
 - a. Warned European nations not to interfere in the Western Hemisphere
 - b. Gave settlers authority over all Native American land
 - c. Placed taxes on imported goods
 - d. Stated that the government would create fair laws for the good of everyone in the colony

“Forasmuch as it has pleased the Almighty God by the wise disposition of His Divine Providence so to order and dispose of things that we, the inhabitants and residents of Windsor, Hartford, and Wethersfield are now cohabiting and dwelling in and upon the river of Conectecotte and the lands thereunto adjoining:”

The Fundamental Orders of Connecticut

14. When was this document enacted?

- a. 1776
- b. 1619
- c. 1639
- d. 1620

- Ruth Bader Ginsburg
- Elena Kagan
- Neil Gorsuch

15. What do these national leaders have in common?

- a. Associates of the Supreme Court
- b. Members of the Cabinet
- c. Ambassadors from the United States
- d. Former Presidents of the United States



16. Who is this national political leader?

- a. Andrew Cuomo
- b. William Barr
- c. Robert Mueller
- d. Alexander Acosta

17. When was the Mayflower Compact signed?

- a. November 11, 1620
- b. November 11, 1736
- c. July 4, 1776
- d. March 1, 1622

18. Who signed the Mayflower Compact?

- a. All of the passengers aboard
- b. Only the designated religious leaders
- c. All of the adult women passengers
- d. Nearly all of the adult male passengers

19. Which Mayflower passenger was chosen as governor of the new colony?

- a. Nathaniel Morton
- b. John Carver
- c. Francis Cooke
- d. Richard Clarke

20. What was the Massachusetts Bay Company?
- a. Organization of nations formed after World War I
 - b. Business owned by investors
 - c. A joint-stock company resident in England
 - d. Group that worked to oppose British rule before the American Revolution
21. Who was to serve in the absence of the Massachusetts Bay Governor?
- a. Judge
 - b. Pope
 - c. Deputy Governor
 - d. Sheriff
22. Why was it suggested to the Virginia colonists it might be good to trade with the Natives?
- a. Needed a labor source
 - b. For protection against the French
 - c. To teach them how to build ships
 - d. Not being sure how well the seed corn would prosper the first year
23. What were discoverers in the Virginia colony to take with them as they traveled with hired guides?
- a. Compass
 - b. Hammer and nails
 - c. Pickaxe
 - d. Extra saddles
24. Who was in charge of finding the strongest, most wholesome and fertile place for the Virginia colonists to settle?
- a. Friar John Paul
 - b. Captain Newport
 - c. General Lee
 - d. Sir Miles Standish

Globalization is the development of a world culture and interdependent world economy.

25. Which is the earliest example of globalization?
- a. Jamestown sells tobacco
 - b. Boeing aircraft being sold to Ethiopia
 - c. Southern cotton sales to England
 - d. Phoenician trade routes around the Mediterranean Sea
26. Who holds about 25 percent of the world's oil and by its membership in the Organization of Petroleum Exporting Countries is able to influence world oil prices?
- a. Lebanon
 - b. Saudi Arabia
 - c. Brazil
 - d. Cuba

27. Which country is attractive to foreign companies because of its central location and multilingual population?
- Libya
 - Argentina
 - Luxembourg
 - Guatemala
28. Socialism is _____.
- Economic system in which many businesses are owned and run by the government
 - Form of government in which one individual ruled as both religious leader and king
 - Industry that provides services like banking, education and tourism to people rather than producing goods
 - Trade without barriers like tariffs or quotas so that goods flow freely between countries
29. What is a command economy?
- Economy driven by forces including competition, supply and demand
 - Government makes all the economic decisions
 - System of building foreign empires for military and trade advantages
 - To put money into a business

-
- Creative jobs
 - Starting businesses
 - Making money
-

30. Which type of economy has very little experience in these factors?
- Theocracy
 - Imperialism
 - Communism
 - Divine Right of Kings
31. What type of government does the United States have?
- Capitalism
 - Monotheism
 - Feudalism
 - Democracy

Unlimited Governments

Dictatorship

?

32. Which government finishes replaces the “?”?
- Absolute monarchy
 - Polytheistic
 - Socialism
 - Hieroglyphics
33. What are benefits and protections guaranteed to you by law?
- Rights
 - Customs
 - Responsibilities
 - Indulgences

34. In _____ governments, the people have no rights.
- a. Cooperative
 - b. Totalitarian
 - c. Constitutional monarchy
 - d. Secular
35. Who wanted to claim the treasure of Tenochtitlan, but first he had to conquer the Aztecs and their leader, Moctezuma?
- a. Christopher Columbus
 - b. Esteban
 - c. Henry Cabot
 - d. Hernando Cortes
36. Which Spanish explorer traveled through present-day Texas, New Mexico and Mexico?
- a. Porfirio Diaz
 - b. Henry Gonzales
 - c. Cabeza de Vaca
 - d. Luis de Moscoso
37. Why did the Spanish government have trouble settling Texas?
- a. Bands of outlaws were raiding in Texas
 - b. Lack of transportation to bring goods
 - c. Poor land, extreme weather
 - d. Overpopulation
38. Who were the cowboys that drove cattle from southern Texas to Louisiana?
- a. Sharecroppers
 - b. Vaqueros
 - c. Priests
 - d. Conquistadors

Main Goals of _____

Collect riches

Teach Native Americans
The Roman Catholic religion

Conquer the land and
people they came across

39. Which nation finishes the title?
- a. Japan
 - b. Germany
 - c. England
 - d. Spain
40. What event happened on June 19, 1865?
- a. Confederate General Robert E. Lee surrendered to Union General Ulysses S. Grant in Virginia
 - b. Texas became a state in the United States
 - c. Union General Gordon Granger announced that all enslaved Texans were free under United States law
 - d. First major battle of the Mexican War was fought

**UNIVERSITY INTERSCHOLASTIC LEAGUE
2019-20 A+ SOCIAL STUDIES
SPRING TEST — GRADES 5 & 6**

Answer Key

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



Storytelling

EVALUATION SHEET

INSTRUCTIONS

Please review the instructions for evaluating the performances of the storytelling contestants. The following criteria are of equal importance to evaluating contestants. Terminology used is only intended to help the judge identify criteria for determining a winner. Please make your comments using language understandable to the contestant. Students and instructors appreciate constructive narrative comments. Please do not confer with other judges before ranking students. Judges' decisions are an individual responsibility.

Speaker Number _____

Speaker Name _____

Round Prelims

Section _____

Finals

Yes No **Did the contestant communicate effectively with the audience?**

Yes No **Did the contestant command attention?**

Yes No **Did the contestant tell the story with ease?**

Yes No **Did the contestant exhibit enthusiasm?**

Yes No **Did the contestant utilize facial expressions, vocal variety and characterization?**

Yes No **Did the contestant make good eye contact?**

Yes No **Did the contestant use good posture?**

Yes No **Did the contestant speak clearly?**

Yes No **Did the contestant use gestures effectively?**

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:

Judge's signature _____



JUDGE'S MASTER BALLOT

CIRCLE EVENT: Impromptu Speaking Modern Oratory Oral Reading Storytelling

INSTRUCTIONS

Each judge should use a copy of this form to rank each of the presentations in the contest. Please do not confer with other judges before ranking students. Judging decisions are an individual responsibility. Refer to the *Constitution and Contest Rules* or Evaluation Sheet for the criteria used to evaluate the presentations.

DISTRICT _____ **SECTION** _____

GRADE LEVEL _____ **ROUND** Prelims Finals

SPEAKER NUMBER	NAME	TITLE	JUDGE RANK
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

Judge's signature _____



Contest Director's Ranking Sheet for a panel of judges in speaking events

EVENT _____

SECTION I II III IV FINALS

BEFORE RANKING, CHECK THE FOLLOWING

- Evaluation sheets have ranks Speaker order Length of presentation

CRITERIA FOR DETERMINING PLACES AND BREAKING TIES

Follow this order to place all contestants.

1. Majority (Watch for the "or better" language in determining a majority.)
2. Lowest sum
3. Judges' preference
4. Decimal equivalentents

NOTES

1. See Section 1003 of the *Constitution and Contest Rules* or the *A+ Handbook* for a full discussion of this procedure.
2. Ties must be broken before other contestants are placed.
3. Be careful! The lowest total does not automatically win. Follow prescribed order of criteria for each ranking.
4. A computer program is available for multiple judge tabulation. See the UIL Web site.

Speaker Number	Judge I	Judge 2	Judge 3	Totals	Preference*	Decimal Value*	Rank
1							
2							
3							
4							
5							
6							
7							
8							

* Judges' preference and decimal values are used only to break ties.



Storytelling Contest

Invitational 2019-20

“Mirror, Mirror”

Grades 2 and 3

by Kathryn Lay

Catie ran across the field. Ahead, she could see a tall Ferris Wheel turning. Music from a carousel ride played loudly. Someone laughed. Someone else screamed.

“Wait for us!” her best friend, Joanie, shouted.

Catie turned and waited for the others to catch up.

“Hurry!” she yelled. “The carnival is already opened. We are missing all the fun.”

She waved at her friends Joanie and the twins Kyle and Lyle. They had been waiting for two weeks for the carnival to come to town.

She hadn’t been to a carnival or fair since she was very little. But she remembered the rides and the cotton candy and candy apples. She remembered the carousel horses going up and down and around. She remembered the clowns that made her laugh. And the magician who made her gasp.

And the House of Mirrors. It was scary, and she left crying.

This time, she wasn’t going to be afraid. All her friends wanted to go inside the funhouse. At the end of the funhouse, the House of Mirrors waited.

Catie was the first in line to pay for her ticket.

“Wow, this is so cool,” Joanie said. Kyle and Lyle, who were full of energy, grabbed Catie and Joanie and pulled them through the crowd.

“Whirling Derby first!” they both shouted.

They all squished into one of the big red chairs. Soon they were whirling and twirling around until Catie had to close her eyes.

“That was great,” Kyle said.

“It was really great,” Lyle said.

Catie’s heart pounded. She could see the funhouse at the end of the row of rides. A big plastic clown head blinked yellow eyes from the top of the building.

“Funhouse!” Joanie yelled.

Catie stopped. “Let’s ride the carousel first.”

Kyle frowned. “That’s for babies,” he said.

Lyle nodded. “Scaredy babies.”

But when Catie walked to the painted horses, her friends followed her. Soon they were racing each other on their horses, moving up and down and around.

When they hopped off the horses, Lyle said, “I’m ready for a mirror adventure.”

“A mirror adventure,” Kyle said.

Catie followed them to the colorful funhouse. She swallowed hard as they walked up the steps.

Inside there were stairs that shook and walkways that moved up and down. They laughed at the wavy mirrors that made them look tall and stretched or short and wide.

Wild noises came from silly looking masks.

Then suddenly, Catie saw the entrance to the room of mirrors. These were not silly mirrors. Soon the friends would separate and walk through the rows.

“Last one out buys the cotton candy!” Joanie yelled. She walked through the doorway.

Catie saw her friend’s reflection, and then she was gone. The twins followed her.

Catie took a deep breath. She could turn around and go back through the funhouse. Then everyone would know she was afraid.

“Okay, here I go,” she said.

She opened and stepped through the glass door. All around her, she saw herself. All of the mirror-Caties looked afraid.

She turned and bumped into a mirror. She turned again and bumped into another mirror.

Catie closed her eyes and felt around the glass until she found the way to the next row.

She pretended she was at home and it was dark in the hall. She imagined feeling the wall until she found the bathroom door.

“Hey, this way!” A voice called.

Catie opened her eyes and saw Kyle wave at her. She took a step forward, holding out her hand. Another mirror.

Her stomach felt like a dozen butterflies were flying inside. Her throat started to hurt. She chewed on her bottom lip.

“I won’t cry,” she said.

She could hear her friends laughing in the House of Mirrors. Sometimes she saw one of the twins moving past a mirror.

She stared at herself in the mirror in front of her. She turned in a circle and watched all the other Caties turn. She stuck her tongue out at them.

Then she bowed.

She giggled. It was silly seeing so many of herself.

“Okay everyone, let’s get out of here!” she said. “Follow me.”

She turned and moved her hand forward. She touched a mirror. Then she reached out to another Catie. There was a path in front of her. That Catie was further down the row.

“Okay, Catie,” she said. “We are on our way.”

When she touched another mirror, she did a little dance at her reflection.

“We dance pretty well,” she said with a smile. The mirror Catie smiled back.

Soon she was weaving in and out. Whenever she touched a mirror in her way, she would make a silly face. She laughed at herself and all the reflections around her.

Suddenly, she stepped through an empty spot and saw sunlight. She walked down the metal steps to where her friends waited.

“Are you okay?” Joanie asked.

Kyle and Lyle were beeping the nose of a fake clown that held a sign saying, “Come back soon!”

Catie grinned at her friends. “That was the best ever. Let’s do it again.”

She grabbed Joanie’s arm. This time, they were going to stay together. She would show them that the house of mirrors wasn’t scary at all. They could make all the other Caties, Joanies, Kyles and Lyles do silly things.



Storytelling Contest

Invitational 2019-20

“Mirror, Mirror”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Catie is at the carnival with her friends: Joanie and the twins, Kyle and Lyle. The last time Catie went to the carnival she was scared; she cried at the House of Mirrors in the funhouse.
2. They all go to the “Whirling Derby,” before travelling to the carousel.
3. After, Katie follows her friends into the funhouse for a “mirror adventure.” Catie is scared, but wants to stay to show she isn’t afraid.
4. She overcomes her fear through laughter. She turns in circles and sticks out her tongue watching her reflections do the same.
5. After making her way out, Catie leads her friends back through. She shows them how much fun the House of Mirrors is.



Storytelling Contest

Invitational 2019-20

“Whispers”

Grades 2 and 3

Brett was the quietest kid in the town of Willow Park.

At school, he sat in the back corner. He never raised his hand to ask questions. When the teacher asked him a question, his voice was a whisper.

He played tag on the playground, but he never shouted or yelled someone’s name. When he said, “You are it,” his voice was a whisper.

Brett lived with four sisters and two brothers. He was the youngest in the family. Everyone was loud, and he could never talk loud enough, so he learned to be quiet. When he asked for more peas at dinner, his voice was a whisper.

Sometimes, Brett wanted to raise his hand. He knew the answer to the question.

Sometimes he wanted to clap and yell on the playground when one of his classmates did a cartwheel or kicked the soccer ball into a goal.

Sometimes, he wanted to tell his brothers and sisters about the great book he just read.

But Brett stayed quiet and talked in whispers.

One morning at school Mrs. Dingle, the principal, made an announcement over the speakers.

“Today we have a surprise for all students,” she said. She never whispered. Her voice was loud.

Brett hoped the surprise wasn’t Meatloaf Surprise in the cafeteria again. He whispered a little giggle.

“There will be a special guest in the auditorium this afternoon. All students will assemble for the last hour of the day,” Mrs. Dingle said.

The classroom was loud with everyone asking their teacher about the special guest.

Mr. Taylor smiled. “You will see.”

Brett opened his mouth to shout a question, but it came out a whisper and no one heard.

That afternoon, Brett's class lined up and walked down the hall with the other classes to the auditorium. It was really the cafeteria, but the lunch tables had been moved. Soon all the chairs were filled.

Mrs. Dingle walked onto the stage. "Hello girls and boys, we have a wonderful treat. An old friend of mine is in town to do a show. She has come to show you her special talent."

Brett leaned forward. The auditorium was quiet as a woman walked up the stairs.

Brett blinked. She was carrying a kid on her hand.

No, not a kid.

"It's a doll," a kid shouted.

Brett shook his head. "Not a doll," he whispered. "A ventriloquist dummy."

The woman sat down and said, "My name is Karen. I'd like you to meet my friend Cleo."

Brett held his breath as Cleo began to talk. Loudly. She told jokes and sang songs and talked to kids who came up on stage.

Karen's lips didn't move when Cleo talked. Karen's own voice was quiet. Cleo's was loud.

At the end of the show, everyone clapped and yelled. Brett clapped. He whispered to his classmates that Karen and Cleo were wonderful.

That night, he went straight to the garage after dinner. He grabbed some heavy silver tape and 3 small boxes. He found colored pencils in his room. He asked his father for some interesting looking gears that were in the garage.

He worked a long time on his surprise. When he was done, he whispered, "We are a team."

The next morning, he carried a big box to the bus. The bus driver blinked. "Is it Show and Tell day?" he asked.

Brett shook his head and found a seat.

Some of the kids stared at the box. Some tapped it. Some asked what was inside. Brett whispered, "A surprise."

During morning math, Mr. Taylor asked who knew the answer to the math problem on the board.

No one raised their hand. Then, Brett bent down and opened his box.

He pulled out a shiny robot puppet.

Then, he raised the puppet's hand.

Mr. Taylor's eyes went wide. The other kids turned and stared.

"Brett? Would you like to answer the question?" Mr. Taylor asked.

There were surprised whispers around the room.

But not from Brett. He pulled a chain attached to the robot's mouth.

When it opened, Brett said in a loud voice, "The answer is 16 because 2 times 9 equals 18 and minus 2 is 16."

Everyone clapped.

Brett said, "Thank you." He spoke a little louder than a whisper.

On the playground, Brett held his robot puppet. When Joey Stephens asked Brett if he wanted to be on his tag team, Brett pulled the string on the robot's mouth. "Yes, I will play on your tag team," he said in a loud voice.

He put ran around the playground and used the robot puppet's arm to tag four people on the other team. "You are it!" he shouted.

"That was great," Joey said.

Brett smiled and said, "Thank you." His voice was much louder than a whisper.

After school, Brett did all of his homework before dinner. Then he carried his robot puppet to the dinner table.

His brothers and sisters and parents stared at the puppet.

"My, my," his father said.

When Brett wanted more carrots, he pulled the string on his robot's mouth. Everyone was talking very loudly at the table. But Brett pulled the string harder and said loudly, "Please pass the carrots!"

Everyone stopped talking. His biggest sister passed the carrots.

Brett smiled at her, and in a voice not like a whisper at all, he said, "Thank you."

That night, Brett placed his robot puppet on a chair beside his bed. He cut the string from the puppet's mouth.

"Tomorrow I will not need a puppet to help me talk," Brett said. "I am not afraid to talk only in a whisper."

He patted the robot puppet's head and whispered. "Thank you."

Then he shouted, "Good night everyone."



Storytelling Contest
Invitational 2019-20

“Whispers”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Brett is an extremely quiet student. As the youngest of six siblings, Brett can never get a word in.
2. The principal at Bret’s school, Mrs. Dingle, makes an announcement that there will be a special guest at an assembly that afternoon.
3. At the assembly, a performer, Karen, brings on a ventriloquist dummy named Cleo. Karen is quiet, but Cleo is loud.
4. That night, Brett makes a “shiny robot puppet” and hides it in a box as a surprise. During class, Brett gets out the puppet to answer questions with a “loud voice.”
5. Gradually, Brett’s own voice gets louder as he uses the puppet. To the point where Brett no longer needs the puppet as he is “not afraid to talk only in a whisper.”



Storytelling Contest

Fall/Winter District 2019-20

“A U.F.O. Adventure”

Grades 2 and 3

by Kathryn Lay

George rolled over in bed and stared out of his bedroom window.

An octopus floated by.

George sat up and blinked. He could see the tips of the tentacles waving as it flew past his window. He jumped out of bed and ran to the window.

The octopus was gone.

“I must be dreaming,” he said to Oscar, his parakeet. “Birds fly. Bugs can fly. Bats fly. Airplanes fly. But I’ve never heard of a flying octopus.”

He had to tell someone. He slipped quietly out of his room and tapped on his brother Martin’s bedroom door.

“Huh?” a voice mumbled.

George opened the door and slipped inside the room. His brother pulled the blanket over his head. “Go away,” Martin said.

George poked his brother through the blanket. “Wake up. I just saw something amazing. A UFO was outside my window.”

Martin sat up and gasped. “You did?”

George’s little brother loved anything about aliens from outer space. He watched movies and read books. His room was full of alien creature toys and posters.

“Was it a spaceship?” Martin asked.

George shook his head. “Not that kind of UFO. This was an unidentified flying octopus.”

Martin glared at George. He pulled the covers back over his head.

George yanked the blanket off his brother. “Let’s investigate.”

Martin said, “We aren’t allowed to go outside at night. We can look for a flying octopus tomorrow. It’s Saturday.”

The next morning, George was up early and dressed. He grabbed his detective kit from his closet. He pulled out a magnifying glass, a flashlight, his fingerprint kit, and his super-duper detective hat.

After breakfast, George and Martin went outside. They walked around the yard under George’s window. George looked through the

bushes with his magnifying glass and flashlight. He made notes on a little pad of paper.

“Maybe it was a bird from the nest,” Martin yelled. He pointed up at the tree across from George’s room.

“Do birds have long tentacles and float?” George asked.

Martin laughed and shook his head.

George heard his name called. Mr. Summers from next door sat in a lawn chair and waved at George.

Martin ran over to his friend. “Did you see anything strange last night?” he asked.

Mr. Summers took a sip of lemonade. “Strange?”

George nodded. He didn’t want his friend to think he was crazy, so he didn’t tell him about the flying octopus. “I think I saw a spaceship from another planet.” He bit his lip. Now that sounded crazy.

Mr. Summers sipped more lemonade. “A spaceship huh? Interesting.”

George showed his friend all his detective tools. He said that he and Martin would find the answer to the mystery outside his window.

Mr. Summers smiled. “I am sure you will. Have fun.”

That night, Martin slept in George's bed. George sat beside the window and waited. It was quiet outside. The moon was full. Then a dog barked. Another one barked.

A shadow moved past the streetlight.

"Martin, wake up!" George shouted. "I think it's coming."

The brothers leaned against the window.

Martin gasped. "Look! I see it!"

George held his breath. The unidentified flying octopus floated slowly toward the window. Its eight arms waved. Suddenly, it hissed at them. Martin backed away from the window.

George blinked. The octopus moved side to side and up and down. Its arms shook. Then, it looked smaller.

He grinned. He watched the octopus move quickly past his window, then disappear.

"That was scary," Martin said. "That didn't look a UFO to me."

George nodded. "Me either."

He had to find out why an octopus was flying past his window at night. He would get up early again and search for clues.

The next morning George and Martin slipped outside before their parents were finished with breakfast. George gave his brother a flashlight.

“Look for anything that’s unusual around the tree and under my window,” he said. He pulled a magnifying glass from his kit.

George held the magnifying glass close to the bushes under his window. Maybe the octopus lost an arm when he suddenly started moving up and down and sideways very fast.

He bent down and peeked under the bushes right below his window. Nothing unusual. He put on his detective hat. He walked from the bushes to the tree, bending down to look at the ground.

George stopped. “I found something.”

Martin ran to him. George pointed at the ground. “There. It looks like a footprint. And a little round spot with a hole in the middle.”

Martin gasped. “A one-legged alien. The flying octopus is his pet.”

George stopped when he heard whistling. He stood and saw his neighbor watering his yard.

“Hi Mr. Summers,” George said. He ran across the yard.

“Good morning George,” Mr. Summers said. He raised his eyebrows. “You are wearing a very interesting hat and holding a magnifying glass today.”

George explained that they were searching for clues again. Mr. Summers turned off the sprayer on his watering hose. “Hope you solve your mystery.”

George watched as Mr. Summers limped across the yard and into his house. He had broken his leg last summer and still limped.

“Let’s go watch something on television,” Martin shouted from under the tree.

George followed him inside. He pulled his hat over his eyes and sat in his dad’s favorite chair. George thought and thought. After a little while he jumped up. “I’ve got it!”

That night, George and Martin waited near George’s window. Martin folded his arms. “I don’t want to see the octopus again. It’s scary.” George said, “Don’t worry. I have solved the mystery.”

He watched the window carefully. Then, a long white tentacle waved at him. After a moment, there were more. The octopus' head floated by. Its black eyes stared at George.

George jumped up, reached out and grabbed a string below the octopus. "I've got you!" He shouted.

"Hey," a voice said. "That's expensive."

George looked down. Mr. Summers stood in the yard below his window. He held onto a rope wrapped around a piece of wood. He leaned on his cane with the other hand.

Martin leaned out the window. "Hi Mr. Summers. Why are you with that octopus?"

George tugged at the string. The octopus bounced up and down. Its legs shook.

"It is a kite," George said to his brother.

Mr. Summers smiled. "You solved the mystery, George. How did you know it was me?"

George pointed. "Your cane. You left a footprint and a little hole with the cane bottom. I remember that circle when I looked at it once."

Mr. Summers bowed. The octopus dipped. “I thought if I stood here with one leg up, you wouldn’t figure it out from the prints. Good job.”

Martin clapped his hands.

George poked his finger against the kite. “Do you think I could fly it tomorrow?”

Mr. Summers nodded. “Yes, I think we can do that.” He waved goodbye and walked away. The octopus floated above him.

Martin went back to his room. George couldn’t wait until the next day.

He had never flown a UFO before.



Storytelling Contest
Fall/Winter District 2019-20

“A U.F.O. Adventure”
Major Elements of the Plot
Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. At night, George sees an octopus fly past his window. He leaves his room to tell his little brother Martin. George informs Martin of the “UFO,” “an unidentified flying octopus.” They agree to go outside and investigate the next day.
2. George gathers items for the investigation from his “detective kit.” Once outside, their neighbor, Mr. Summers, sees the boys and calls them over.
3. That night, the octopus appears again, but this time it moves “side to side and up and down.”
4. When searching the next morning George finds “a footprint” and a “round spot with a hole in the middle.” The boys see Mr. Summers again. He limps because he broke his leg last summer.
5. When the Octopus appears that night, George grabs it. However, it is just Mr. Summers’ kite. George theorized this because of the footprint and cane indent they saw. Mr. Summer’s agrees to let George fly the kite the next day.



Storytelling Contest

Fall/Winter District 2019-20

“The Special Project”

Grades 2 and 3

by Kathryn Lay

Kyran bent deep into the kitchen trash can. He pulled out two aluminum cans, a soda can, a cardboard box and three empty water bottles.

“Mom! Someone has been throwing away recycle stuff again!” he shouted.

Kyran’s sister peeked from the pantry. She giggled. “It’s fun to watch you dig through the trash.”

Kyran grabbed a bag and filled it with his finds. He patted Patches who meowed and rubbed against his leg.

Kyran walked out to the garage and opened the lids of the plastic containers. “Aluminum, cardboard, plastic bottles,” he said as he dropped the items into the bins.

They were almost full.

“Hey, how is the trash collection going?” a voice said.

Kyran turned. His best friend leaned against the open garage door.

“It’s not a collection, Chris,” Kyran said. “You know why I’m doing this.”

Chris nodded.

Kyran closed the garage door and picked up a box by the front porch. It was trash day and every trash day he went up and down the streets looking for things to recycle.

“So, when are you going to turn that stuff into money?” Chris asked.

Kyran shoved the box into Chris’s hands. They walked to Mrs. Crowley’s house. A box of small pieces of metal and some aluminum dog food cans had been put on the curb. His name was written on the front.

Kyran said, “I’ve already gone to the recycling building three times. I should have full bins to take tomorrow.”

They walked up and down the streets, adding more to the boxes they carried. Kyran knew that it was important to recycle, but he also knew he could get money for some of it. He had special plans for that money. So far, he had almost fifty dollars.

When the boxes were full, Kyran said, “Let’s get Dad to take us to get these recycled. We can get ice cream after.”

Chris rubbed his hands together. “So then are you going to get the special project done?”

Kyran shook his head. “No, you’ll see.”

Kyran’s father helped them pile boxes into the trunk of his car. They went to the recycling office.

“Wow,” Chris said. “You got \$23.00”

“And twelve cents!” Kyran said.

As they ate ice cream cones, Kyran said, “I have enough to buy lots of ingredients to make cookies and lemonade.”

Chris frowned. “That’s the project?”

“No, it’s the next step.”

That weekend, Kyran spent Friday after school making cookies and pitchers of lemonade. Saturday morning early, he set up a table and chair at the city flea market. There were lots of customers.

By the end of the day, he had two cookies left and two cups of lemonade.

“Mmm, these sure are good,” Chris mumbled.

Kyran nodded. “I’m a good cookie maker.” He shook his metal box. “And I have \$78.00 to prove it.”

Chris coughed and took a big drink of lemonade. “That’s a lot of money. Perfect for your special project.”

Kyran grinned. “There is one more step.”

The next day, he took his cookie and lemonade money and went to the hardware store. He bought pieces of plywood and had them cut to special sizes. He bought four cans of paint. His mom was having a yard sale the next weekend.

Kyran spent every day after school working in the garage. He painted and painted. He gave his little sister a board so she could paint too.

On the day of the yard sale, Kyran laid all the painted boards on a table. He sat behind the table and waited.

A woman walked up to the sale. She picked up jars and old kitchen pans his mom had for sale. Then she walked to Kyran’s table. “Oh my, isn’t this interesting.”

She picked up each board and commented on them. “What a clever idea to do, and so nicely. I’ll take one please.”

She picked one with a rainbow and bright red letters that read, A FRIEND LIVES HERE.

Each of the boards said the same thing. Some had pictures of birds or trees or smiling suns. One had paw prints from when Patches walked in the paint.

Chris skidded his bicycle at the end of the driveway. “Are you almost ready to go to the park? I want to practice my kicking for soccer next weekend.”

Kyran showed him the wood signs. “I need to sell them all. Then I can go.”

They sat and drank ice water and watched people come and go. Lots of people liked his signs. By the time his mother said, “It’s too hot. I’m closing down the sale,” Kyran only had one sign left. It was the cat pawprint picture.

“How much did you make?” Chris asked.

Kyran counted the money in his tin box. “148.00”

Chris whistled. “That’s great. Is it enough?”

Kyran nodded. “It’s enough.”

He went to the park with Chris like he promised. Then he hurried home and grabbed his box of money.

“Can we go now?” he asked his mother.

She smiled. “I was waiting for you to ask.”

They drove past his school, around the corner, beyond a group of shops. His mother stopped at a big gray building.

Kyran grabbed his tin box full of money and the last of his signs. He opened the heavy door. The bell over the door rang.

“Well, hello Kyran. Are you back for another visit?”

Kyran shook his head. “Not just a visit this time, Mr. Seabolt. I have been working on a special project.” He cleared his throat. “I collected bottles and cans and metal for recycling. I took the money and had a lemonade and cookie stand. Then I bought supplies to make special signs and sold them at my Mom’s yard sale.”

He held out the tin box. “\$150.00. I added two dollars from my piggy bank to make it even.”

“My my,” Mr Seabolt said.

Kyran grinned and gave him the box. “For the animals. So they find good homes.”

Mr. Seabolt took the box. “This is wonderful. We can have a free adoption day next week for every dog and cat at the shelter. There are only 4 dogs and two cats with us now.”

Kyran held out the sign. “For your front door.”

He watched Mr. Seabolt hang the sign. A FRIEND LIVES HERE.

He couldn't wait for six people to find a new friend. Just like he did. He felt in his pocket and found four quarters. On the way home, he would buy Patches a new toy. She would always be his special project and friend.



Storytelling Contest
Fall/Winter District 2019-20

“The Special Project”
Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Every week, Kyran travels “up and down the streets looking for things to recycle.” Kyran takes what he finds to the recycling office where they pay him money for what he brings in.
2. Kyran has a “special project” that he wants to spend his money on. The first step involves buying ingredients for cookies and lemonade. He sells the baked cookies and lemonade that weekend making a profit off the sales.
3. He uses this money to buy “pieces of plywood” and “cans of paint.” With these materials, Kyran paints customized signs, which he sells at his family’s yard sale. After selling the painted signs, Kyran makes an even larger profit.
4. Now with enough money Kyran can complete his “special project.” He goes to the animal shelter run by Mr. Seabolt. He donates all the money he made and gives Mr. Seabolt the last of his signs, which says “A Friend Lives Here.”
5. With the four quarters left in his pocket he buys Mr. Patches, his cat, a new toy.



Storytelling Contest
Spring District 2019-20

“The Case of the Missing Sandwich”

Grades 2 and 3

by Kathryn Lay

Jenny grabbed her notebook and hurried out the door to meet her friends at the park.

“Hurry, please, Mom,” she yelled.

She jumped into her Mom’s truck and waited. Soon they were driving to the park where everyone in the neighborhood played on Saturday.

There was always a soccer game going on. And the playground was covered with kids like ants. People were flying kites and walking dogs.

But the best part was, it was always a great place for Jenny to find a mystery to solve.

Jenny loved a good mystery. She read mystery books. Watched mystery shows on television. She made up mysteries around the house to solve.

Sometimes, they were just too hard to solve. When her Mom's best pair of scissors disappeared, she never figured out that her Mom left them at Jenny's grandmother's house. And when her brother's bicycle was stolen, everyone was surprised it was Carl's best friend. Even Jenny.

Her mother stopped the truck at the park. "Looks like you have a mystery going on," her mother said.

Jenny tapped her finger on her notebook. She kept all her information on mystery cases she had read about and the ones she solved in there.

"Not yet," Jenny said. "But if there is, I'll be ready.

She jumped out of the truck.

"I'll be back in two hours to pick you up," her mother said.

Jenny ran across the grass. She ran past the volleyball court and around the softball field. She ran around the swings and slides to the picnic tables. She knew her friends would be waiting there.

"Hey everyone!" she yelled.

Tina, Joey and Stephanie sat on top of a picnic table. They waved for her to come to them.

Jenny sat beside Tina. “So, are there any good mysteries today?” she asked.

Tina laughed. “Is that all you think about?”

Tina’s brother Joey said, “Detective Jenny is always ready to solve a mystery.”

Jenny clapped her hands. “That is a great motto.”

“Hey!” a voice yelled. “Someone stole it!”

Jenny jumped up. She and her friends ran around to the last picnic table, near the old monkey bars.

The table was filled with little kids and their sack lunches.

“What got stolen?” Jenny asked.

A boy said, “My sandwich. I pulled it out of my bag. Then I got a cup of water from over there.”

He pointed to a spot behind the table where there was a big thermos. In front of him sat an apple and a cup of water.

“I came back and my jelly sandwich was gone,” the boy said.

“Hmm,” Jenny said. She looked at the other kids. She frowned and tapped her pen against her nose. She wondered which one of the other kids took the sandwich.

Jenny opened her pad of paper and pulled a pencil from her pocket.

“Okay, I want to know what everyone was doing while he was getting his water,” she said.

Jenny’s friends sat down on the grass. They smiled and nodded.

“Don’t worry, kid,” Stephanie said. “Jenny is the best mystery solver in school.”

“In the whole town,” Jenny added.

She stood beside each kid one at a time and asked what they were doing.

One kid said he was eating his cookies. ‘I always eat dessert first.’

One kid was telling a joke to the kid next to him.

One kid was crying because she broke her favorite bracelet all over the ground.

“I helped her pick it,” another kid said.

“I was helping Jake take Puddles to get on the slide,” a boy said.

Jenny asked, ‘Is Puddles one of the other kids?’

The boy shook his head. ‘No, that’s Puddles coming now.’”

Jenny looked up and saw a boy dragging a large dog across the grass.

“Puddles is the dog,” the boy said.

Jenny nodded and wrote it down. She talked to each of the kids again but they were all busy when the boy went to get water.

She looked at the napkin where the sandwich had been. There was a drop of red jelly on it. And a little bite mark out of the napkin.

She sighed. This was a hard mystery. It all happened fast and no one was looking.

She felt something cold on her arm. Puddles nudged his nose against her arm. She bent down to pet the dog.

Jenny loved dogs. This one had big eyes that seemed to smile. He had white hair and his tongue always seemed to be sticking out.

She rubbed his head. Then she gasped.

Jenny stood and smiled.

“I have solved the missing sandwich mystery,” she told everyone.

All the kids were quiet. The boy with the missing sandwich stood next to her. “Okay, who did it. They owe me a sandwich.”

Jenny raised her hand and swung it back and forth. She pointed to each one of the kids at the table.

“Someone at this table took his sandwich. They didn’t ask. They didn’t trade. And they are probably ready to have another sandwich.”

She waited until everyone was staring at her.

“The sandwich thief is...Puddles!” Jenny announced.

The kids gasped. Jenny raised puddles head. On his white fur, under his chin, they could see a stain of red. The boy with the missing sandwich touched the red spot.

“Oooh, sticky. It is jelly. My jelly,” he said.

Everyone clapped.

“You did it,” Tina said. “You solved the mystery.”

Jenny folded her notebook. She put her pencil into her pocket. Jenny bowed.

“Of course. I am always ready to solve a mystery.”

She patted Puddles on the head again. Jake tore his sandwich in half and gave it to the boy. “I’m sorry Puddles ate your jelly sandwich.”

Puddles licked his lips and barked.

Jenny was ready for another mystery. And maybe, a jelly sandwich.



Storytelling Contest
Spring District 2019-20

“The Case of the Missing Sandwich”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Jenny’s mom drives her to the park to meet up with friends. Jenny liked the park because it always had a mystery to solve.
2. Once at the park with her friends, Jenny hears someone yell that someone stole his sandwich. Jenny goes to see if she can get to the bottom of the mystery.
3. Jenny interviews the boy and asks the people around him what they were doing at the time the sandwich was taken. She examines the evidence and finds that the napkin the sandwich was on has a little bite take out of it.
4. Jenny pets a dog, Puddles, and notices that he has jelly on his chin. She announces that Puddles is the culprit.
5. The kids applaud Jenny’s mystery solving abilities, but they feel sorry for the kid whose sandwich was eaten. One boy, Jake, gives the kid half of his sandwich to make up for it.



Storytelling Contest Spring District 2019-20

“Texas Twister”

Grades 2 and 3

by Kathryn Lay

Carol rode her bike down the street to her best friend’s house. The wind whipped through her hair and the sparkling ribbon on her handle bars.

She looked up at the clouds. They had gotten darker since that morning. The breeze was hot.

She hoped it would not rain. She and Linda were going to ride their bikes to the library for a special carnival. There would be a clown and face painting and silly games. There was even going to be an author who read his book and talked about being a writer.

Carol skidded her bike to a stop at Linda’s house. She lay it down on the grass and ran up the steps to the front door.

“Hi,” Linda said when she opened the door.

“Let’s go,” Carol said. “The carnival starts soon.”

Linda frowned. “My parents say I can’t go. There is a big storm coming.”

Carol stared at her friend. “So, it’s going to rain. That will make it more fun. I think most of the carnival fun is inside. The clown and face painting and author are in different parts of the library.”

She remembered they were having a Food Truck too. She jingled the money in her pocket.

Linda stepped back. “Come on in. I can’t go until after the storm. We can play a game.”

Carol frowned. She didn’t want to miss the carnival. She walked into the house, looking back at the dark clouds.

“It probably won’t even rain,” she mumbled.

She said hello to Linda’s parents before they went upstairs to Linda’s bedroom.

“What do you want to play?” Linda asked.

Carol shrugged. She wanted to play carnival games. And eat a candy apple. And laugh at a clown.

She gasped when she saw a bright light. Then came a loud explosion of thunder that rattled the window beside her. Carol jumped back with a scream.

She let out a nervous laugh. “That was loud.”

Linda said, “Too loud.”

Carol was surprised to see how dark it was outside now. The trees blew back and forth in the wind. The clouds looked green.

“My dad says that green clouds might mean a tornado,” Linda said. “He used to be a storm chaser when I was little.”

Carol looked closer at the clouds. Were they tornado clouds? And why would you chase a storm?

Carol looked up at the ceiling. She could hear something hitting the roof. Out of the window white balls of ice bounced on the ground.

“It’s hailing,” she said.

She hoped they had taken everything inside for the carnival. The hail might tear up everything.

She pulled her phone from her pocket. It was for emergencies only. It might be an emergency. She called her parents.

“Stay there,” her Mom shouted into the phone. “Don’t come home until after the storm.”

Then the hail stopped and the trees stopped dancing in the wind. Everything seemed suddenly quiet.

Linda’s father burst into the room and yelled, “Downstairs. Quick!”

Carol and Linda followed him down to where Linda’s mom pointed to the bathroom. “It’s safest in here when a tornado comes. Everyone in.”

Carol’s heart pounded. There really was a tornado? She hurried inside beside her friend. She was glad it was a big bathroom. They all squeezed inside and shut the door.

“I’m scared!” Linda shouted. She put her arms around her parents.

Carol was scared too. But she remembered how when she had fallen off her bike last week and skinned her knee, Linda had helped her home.

And when she had to learn lines for the school play, Linda practiced with her every day.

Carol took a deep breath.

“Last year when I went to the carnival, I played the bean bag toss. I tossed it like a baseball and it went too high,” she said.

Linda mumbled, “Did you win?”

Carol shook her head and said, “No, it flew high up and landed on a table with donuts. A donut rolled off the table. Then, the clown tried to catch it.”

Linda gasped. “Did he catch it? Did he eat it?”

Outside, something crashed against the front door. The lights went off in the bathroom.

Linda screamed.

Carol talked louder. “He caught it, but then this big black bird came and grabbed it out of his gloved hand.”

Linda laughed.

Carol said, “The clown took a bow and tumbled over.”

“Was he hurt?” Linda asked.

Carol listened to the wind outside. It was quieter now. The lights came back on. Carol could not hear rain against the windows.

Linda’s parents smiled. “What happened to the clown then?”

Carol rolled her hands around. “He did a perfect roll and stood up with his arms wide. Everyone laughed and clapped.”

Linda clapped. “That was a good story.”

Linda’s dad opened the bathroom door.

“Yes, it was fun. And the storm is over,” he said.

They walked out of the bathroom and down the hall. Carol could see sun shining in the windows.

Linda’s parents walked out the front door and yelled, “One small tree down. Some stuff blown around. Not a lot of damage though.”

Carole ran upstairs to Linda’s room. She had left her cell phone on the bed. She called her parents. They were okay. The tornado wasn’t on their street.

“Well, I bet that’s the end of the carnival,” Linda said.

Carole walked onto the porch. “It doesn’t look too bad out there. Maybe your parents will drive us to the library. Maybe we could help clean up any messes.”

Linda nodded. “Maybe they moved the games inside.”

Carole grinned. She hadn't thought about that. They probably moved everything but the dunking machine inside where it would be safe.

"Let's go," Carole said. "I'm ready for some games."

On the way to the library, Linda nudged Carole. "I guess you had better skip the bean bag toss game this time. It sure was fun to hear about though."

Carole looked out the car window and smiled. Maybe she would play that game. The chances of that happening was pretty wild.

It had been the best made up story she had ever told. It helped Linda not to be so afraid. After all, what was a best friend to do in a tornado? Tell a silly story. A tornado of a story.



Storytelling Contest
Spring District 2019-20

“Texas Twister”

Major Elements of the Plot

Grades 2 and 3

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Carol and her best friend, Linda, plan on riding their bikes to the library for a carnival, but Linda’s parents say that she cannot go because a big storm is coming.
2. Despite Carol’s desire to go to the carnival, the two girls stay at Linda’s house and look for things to do. A thunderstorm starts and lightning flashes outside.
3. A tornado forms. Linda’s father yells that they need to come downstairs, and everyone piles into the bathroom.
4. Linda is scared because the lights go out and things crash outside. Carol tries to distract her by telling her a made-up story about her time at the carnival the year before. Carol’s strategy works and Linda cheers up as the storm clears.
5. Now that the storm is over, they can go to the carnival. The girls look forward to the games they will play.