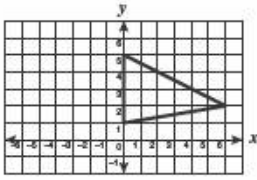


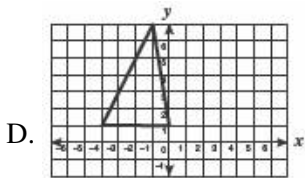
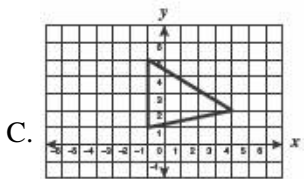
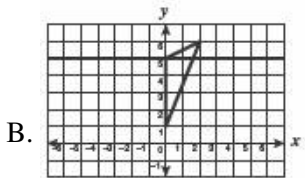
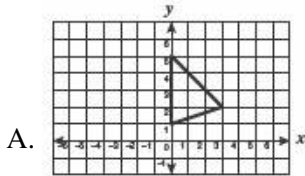
Name: _____

Date: _____

1. The diagram below shows a geometric figure on a coordinate plane.



Which of the diagrams below shows a rotation of this geometric figure?



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2.

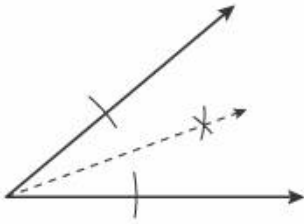
Triangle JKL is located at $J(1, 1)$, $K(1, 5)$ and $L(5, 5)$. Point K will be translated one unit up and 6 units to the right. What shape will triangle $JK'L$ become?

- A. right triangle
- B. acute triangle
- C. obtuse triangle
- D. equilateral triangle

3.

Where would $|-7|$ be on the number line?

- A. 7 units to the right of zero.
 - B. 7 units to the left of zero
 - C. 7 units to the left and right of zero
 - D. 7 units from zero
-



4.

The drawing shows a compass and straightedge construction of —

- A. a perpendicular to a given line from a point not on the line.
- B. a perpendicular to a given line at a point on the line.
- C. the bisector of a given angle.
- D. an angle congruent to a given angle.

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5. Which mathematical expression means 7 more than the product of 3 and x ?

- A. $3 + x + 7$
 - B. $3 \div x + 7$
 - C. $7x + 3$
 - D. $3x + 7$
-

6.

Marcus has \$40 in his pocket. Joseph has twice as much as Marcus, Jenna has half as much as Marcus, and Sam has one-third as much as Marcus. Order the individuals based on the amount of money they have from least to greatest.

- A. Sam, Jenna, Marcus, Joseph
 - B. Jenna, Sam, Marcus, Joseph
 - C. Sam, Jenna, Joseph, Marcus
 - D. Joseph, Marcus, Jenna, Sam
-

7.

A point was graphed at $(-3, 3)$. The point was translated to $(3, 3)$ and then translated to $(3, -3)$. Which translations occurred?

- A. two equal dilations
 - B. reflection over the x -axis, then a rotation
 - C. reflection over the y -axis, then a reflection over the x -axis
 - D. reflection over the x -axis, then a reflection over the y -axis
-

8.

Which of these shapes can be created using two congruent isosceles triangles?

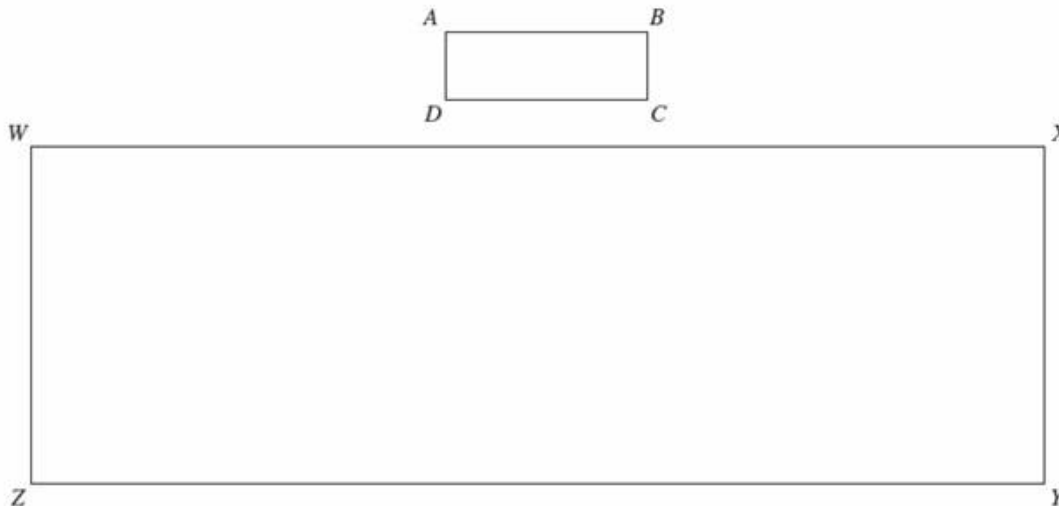
- A. rhombus
 - B. rectangle
 - C. trapezoid
 - D. parallelogram
-

9.

Apples cost $3x$. Oranges cost $(x + 6)$. Which expression represents the cost to buy one apple and five oranges?

- A. $8x + 6$
 - B. $8x + 30$
 - C. $4x + 11$
 - D. $4x + 30$
-

10. Two rectangles, $ABCD$ and $WXYZ$, are shown below. The measure of each side of $WXYZ$ is 5 times the measure of each corresponding side of $ABCD$.



Which statement is true of the areas of these two rectangles?

- A. The area of $WXYZ$ is 5 times the area of $ABCD$.
- B. The area of $WXYZ$ is 10 times the area of $ABCD$.
- C. The area of $WXYZ$ is 20 times the area of $ABCD$.
- D. The area of $WXYZ$ is 25 times the area of $ABCD$.

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11.

Leah and Zack earned (d) dollars an hour for each hour they worked. Leah worked 29 hours. Zack worked 36 hours. Which expression represents the combined amount of money Leah and Zach earned?

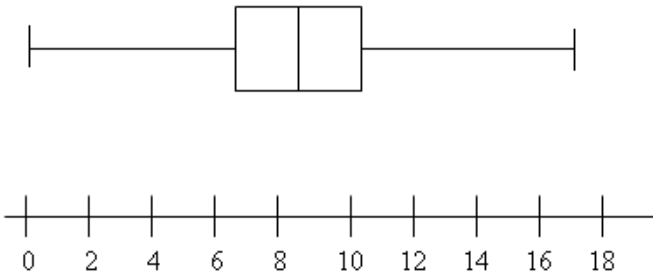
- A. $7d$
- B. $65d$
- C. $7 + d$
- D. $65 + d$

12.

Given the equation $y = 2x + 3$, how does changing the value of x , affect the value of y ?

- A. As x increases by 1, y doubles.
- B. As x increases by 1, y increases by three.
- C. As x increases by 1, y increases by two.
- D. As x increases by 1, y doubles and increases by three.

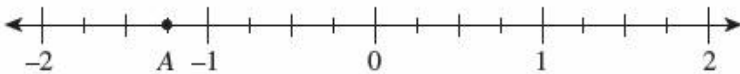
13.
Number of Orange Skittles in an Individual Package of Skittles



What is the approximate median number of orange Skittles in a bag?

- A. 4
B. 6
C. 8
D. 12

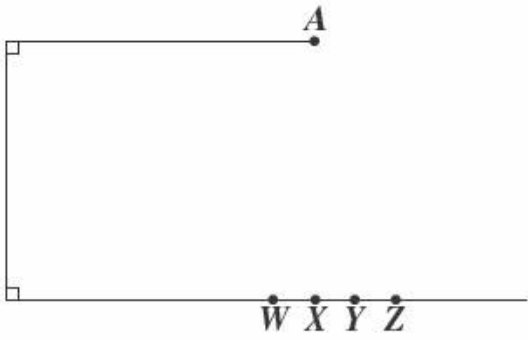
14. Which of the following **best** represents the location of point A on the number line shown below?



- A. $-2\frac{3}{4}$
B. $-2\frac{1}{4}$
C. $-1\frac{1}{2}$
D. $-1\frac{1}{4}$

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15.
You are buying a sweater for your mother that is marked down 10%. If the sweater's sale price is \$29.00, how much did it cost originally?
- A. \$3.22
B. \$25.78
C. \$32.22
D. \$36.36



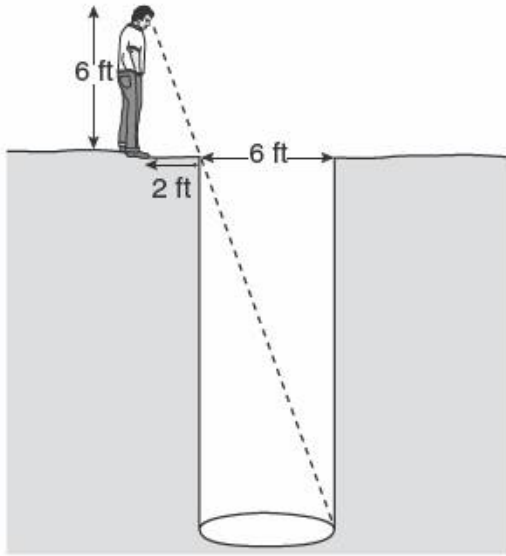
16.

To which point should a line segment from A be drawn so that the resulting figure is a rectangle?

- A. W
- B. X
- C. Y
- D. Z

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17. When standing upright, Gary knows his eyes are 6 feet above ground level. To determine the depth of a well, he stands in the position shown.



Using the given measures, how deep is the well?

- A. 12 ft
- B. 14 ft
- C. 16 ft
- D. 18 ft

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18. Which is a solution for

$$5(x - 3) = 15?$$

- A. 0
- B. $\frac{12}{5}$
- C. $\frac{18}{5}$
- D. 6

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19.

Bethany's family can eat $(13h - 6)$ hotdogs. Clark's family can eat $(10h + 3)$ hotdogs. Which expression shows the difference between the number of hotdogs Bethany's family can eat and the number of hotdogs Clark's family can eat?

- A. $3h - 9$
 - B. $3h - 3$
 - C. $-3h + 9$
 - D. $-3h + 3$
-

20.

The five number summary for a set of data is shown.

min: 1
Q1: 5
Q2: 24
Q3: 37
max: 45

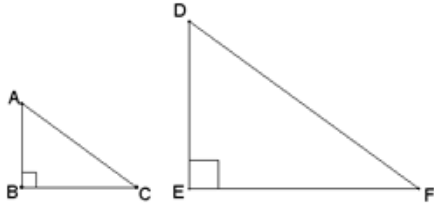
What is the interquartile range for this set of data?

- A. 44
 - B. 1-45
 - C. 32
 - D. 5-37
-

21. A car-rental agency charges \$38 per day plus \$0.21 for each mile driven. Sandra paid \$88.40 for renting a car from them for one day. Which of the following could be used to find the number of miles she drove that day?

- A. $0.21x + 38 = 88.4$
- B. $0.21x = 88.4$
- C. $38x = 0.21(88.4)$
- D. $38x + 0.21 = 88.4$

22.



Given: $\triangle ABC \sim \triangle DEF$.

Which statement shown is a correct similarity statement?

- A. $\triangle BCA \sim \triangle EDF$
 - B. $\triangle BAC \sim \triangle EDF$
 - C. $\triangle CBA \sim \triangle DFE$
 - D. $\triangle CBA \sim \triangle FDE$
-

23.

$$-2, \frac{1}{5}, 0.\bar{7}, \frac{1}{4}, -3.2, -3.7$$

- A. $-3.7, -3.2, -2, 0.\bar{7}, \frac{1}{5}, \frac{1}{4}$
- B. $-3.7, -3.2, -2, \frac{1}{4}, \frac{1}{5}, 0.\bar{7}$
- C. $-3.2, -3.7, -2, \frac{1}{5}, \frac{1}{4}, 0.\bar{7}$
- D. $-3.7, -3.2, -2, \frac{1}{5}, \frac{1}{4}, 0.\bar{7}$

Write these numbers in order from smallest to largest.

- A. A
 - B. B
 - C. C
 - D. D
-

24.

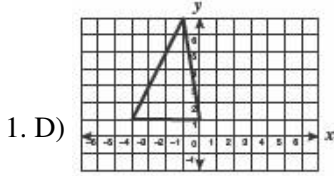
A model of a house has been drawn on a coordinate grid. One corner of the house has been drawn at $(1, 5)$. The drawing will be translated two units up and three units to the right. Where will the same corner of the house be after the translation?

- A. $(-2, 3)$
 - B. $(-1, 2)$
 - C. $(3, 8)$
 - D. $(4, 7)$
-

25. Evaluate $4r - 22$ if $r = 20$.

- A. -2
- B. 2
- C. 58
- D. 398

Answer Key



2. C) obtuse triangle

3. A) 7 units to the right of zero.

4. C) the bisector of a given angle.

5. D) $3x + 7$

6. A) Sam, Jenna, Marcus, Joseph

7. C) reflection over the y -axis, then a reflection over the x -axis

8. A) rhombus

9. B) $8x + 30$

10. D) The area of $WXYZ$ is 25 times the area of $ABCD$.

11. B) $65d$

12. C) As x increases by 1, y increases by two.

13. C) 8

14. D) $-1\frac{1}{4}$

15. C) \$32.22

16. B) X

17. D) 18 ft

18. D) 6

19. A) $3h - 9$

20. C) 32

21. A) $0.21x + 38 = 88.4$

22. B) $\triangle BAC \sim \triangle EDF$

23. D) D

24. D) (4, 7)

25. C) 58