1 Which expression is equivalent to $9 + y + y + 3$?

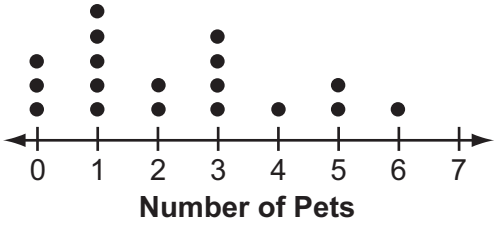
Ⓐ $9y + 3y$

Ⓑ $12 + 2y$

Ⓒ $9y^2 + 3$

Ⓓ $12 + y^2$

2 Aaron surveyed a group of students about the number of pets they own. He recorded the data in the dot plot below.



How many students did Aaron survey?

Ⓐ 6

Ⓑ 7

Ⓒ 18

Ⓓ 21

3 The temperature on Skylar's thermometer last night was -3°F. This morning it was colder. What could be the temperature on her thermometer this morning?

Ⓐ -5°F

Ⓑ -1°F

Ⓒ 0°F

Ⓓ 2°F

4 A baker made 260 cupcakes last week. Of all the cupcakes made, 55% were chocolate. How many of the cupcakes were chocolate?

Ⓐ 117

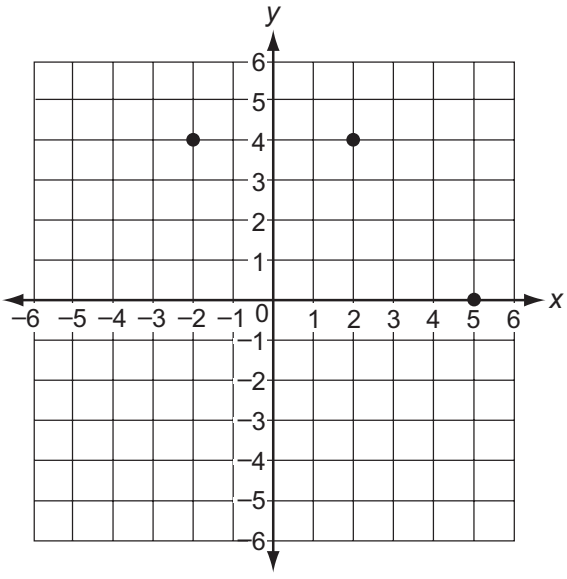
Ⓑ 130

Ⓒ 135

Ⓓ 143

Name _____

5 Lamont is planning to build a pen for his chickens in the shape of a right trapezoid. He plots three vertices of the pen on the graph below.



What are the coordinates of the fourth vertex of Lamont's chicken pen?

Ⓐ (−5, 0)

Ⓑ (−2, 0)

Ⓒ (1, 0)

Ⓓ (5, 4)

6 Which value of k makes the inequality $11 + 2k > 19$ true?

Ⓐ 0

Ⓑ 2

Ⓒ 4

Ⓓ 6

7 Mr. Lopez has 238 silver coins in his coin collection. The actual weight of the real silver in each coin is 0.85 ounce. How many ounces of real silver does Mr. Lopez have in his coin collection?

Ⓐ 200.5 ounces

Ⓑ 202.3 ounces

Ⓒ 268 ounces

Ⓓ 280 ounces

8 An architect created four different designs for a theater's seating as shown in the table below.

Theater Seating

Design	Number of Rows	Number of Seats
A	14	196
B	20	220
C	18	234
D	25	300

If the length of each row is the same in each design, which design has the greatest ratio of the number of seats per row?

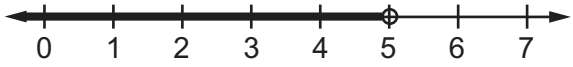
Ⓐ A

Ⓑ B

Ⓒ C

Ⓓ D

9 The number line below shows the number of days Amaya spends practicing the guitar every week.



Which inequality BEST represents the number of days, *d*, she practices?

Ⓐ $d \leq 5$

Ⓑ $d \geq 5$

Ⓒ $d < 5$

Ⓓ $d > 5$

10 The list below shows the amount of money Hannah earned mowing lawns for the past five weeks.

$40, $15, $20, $40, $35

Which measure shows that the amount of money she earned varied?

Ⓐ mean

Ⓑ median

Ⓒ mode

Ⓓ range

11 In which quadrant of the coordinate plane is the point (−4, 1) located?

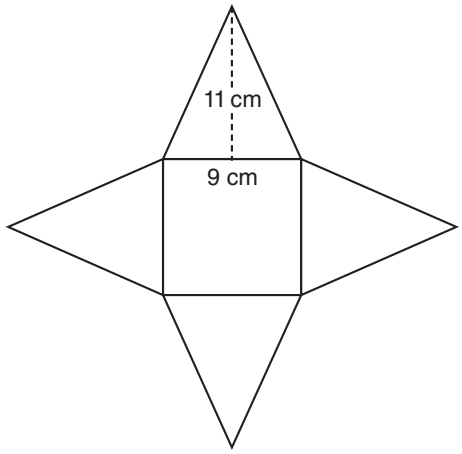
Ⓐ Quadrant I

Ⓑ Quadrant II

Ⓒ Quadrant III

Ⓓ Quadrant IV

12 Marcus used the net of the square pyramid below to make a gift box out of cardboard.



How much cardboard did he use to make the box?

Ⓐ 477 cm^2

Ⓑ 396 cm^2

Ⓒ 279 cm^2

Ⓓ 198 cm^2

Name _____

13 Lexi is hiking a trail that is 7.5 miles long. She stops to take a break after hiking 3.8 miles of the trail. Which equation can be used to find how many miles, *m*, Lexi has left to hike?

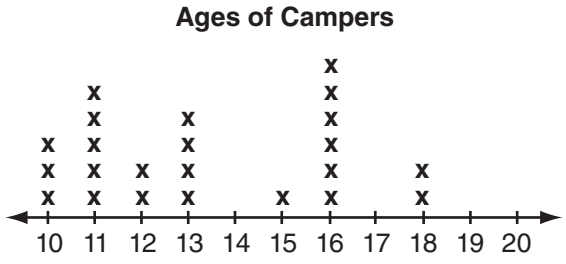
Ⓐ $m - 3.8 = 7.5$

Ⓑ $3.8 + m = 7.5$

Ⓒ $m - 7.5 = 3.8$

Ⓓ $7.5 + 3.8 = m$

14 The line plot below shows the age of each camper at Camp Sunshine.



Which statement BEST summarizes the distribution of the data?

Ⓐ There is a gap in the data after age 18.

Ⓑ The data is symmetrical around age 15.

Ⓒ The data are clustered from ages 10 to 18.

Ⓓ There are peaks in the data at ages 11 and 16.

15 A scientist studies a pond and finds that it has 18 fish and 24 turtles. What is the ratio of turtles to fish in the pond?

Ⓐ 4:3

Ⓑ 3:4

Ⓒ 7:4

Ⓓ 4:7

16 The table below shows the elevations of different locations in California.

Elevations of Locations

Location	Elevation (in meters)
Bombay Beach	–69
Georgetown	–2
Red Rock	53
Sand Island	13
Laguna Salada	–10

Which location has the lowest elevation?

Ⓐ Bombay Beach

Ⓑ Georgetown

Ⓒ Sand Island

Ⓓ Laguna Salada

17 A rectangular prism measures $6\frac{1}{3}$ meters long and 3 meters wide. If the volume of the prism is $90\frac{1}{4}$ cubic meters, what is the height of the prism?

Ⓐ $5\frac{3}{4}$ meters

Ⓑ $4\frac{3}{4}$ meters

Ⓒ $4\frac{1}{8}$ meters

Ⓓ $3\frac{1}{6}$ meters

18 Which of the following is a statistical question?

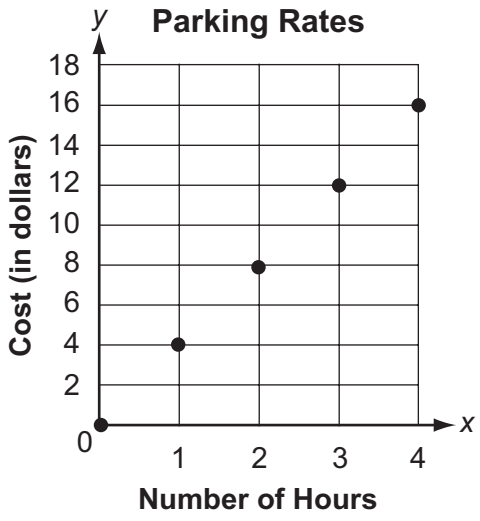
Ⓐ What percentage of Earth's core is made up of iron?

Ⓑ How many times larger is the sun than the Earth?

Ⓒ Which planet in our solar system is the farthest from Earth?

Ⓓ How many meteors enter Earth's atmosphere every day?

19 The graph shows the cost of parking, *y*, per hour, *x*, at a parking garage.



Which equation represents the relationship shown in the graph?

Ⓐ $y = 4x$

Ⓑ $x = 4y$

Ⓒ $y = x + 3$

Ⓓ $x = y + 3$

20 A giraffe measures 17 feet tall. A gorilla measures 63 inches tall. How many feet taller is the giraffe than the gorilla?

Ⓐ $9\frac{1}{8}$ feet

Ⓑ $10\frac{7}{10}$ feet

Ⓒ $11\frac{3}{4}$ feet

Ⓓ $12\frac{1}{2}$ feet

Name _____

21 The side of a triangle is drawn from $(-7, 11)$ to $(-7, -6)$ on a coordinate plane. What is the length of the side of the triangle in units?

Ⓐ 4

Ⓑ 5

Ⓒ 14

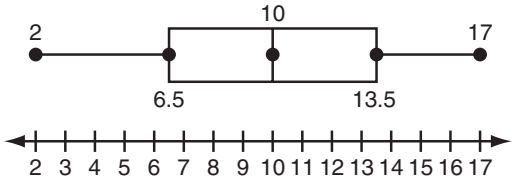
Ⓓ 17

22 Gabby recorded the number of points she scored in her first eleven basketball games of the season.

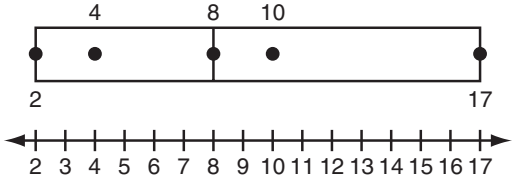
4, 8, 6, 2, 10, 13, 4, 9, 17, 10, 5

Which box plot correctly displays Gabby's data?

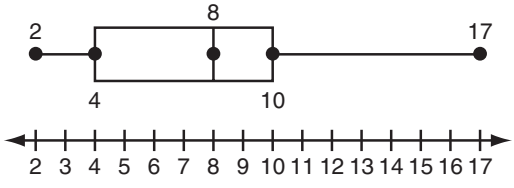
Ⓐ



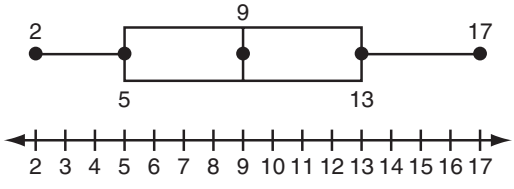
Ⓑ



Ⓒ



Ⓓ



23 Jabari used b blocks to build a bridge. Anna used 6 more than 3 times as many blocks as Jabari did to build a bridge. Which expression represents how many blocks Anna used?

Ⓐ $3b + 6$

Ⓑ $3(b + 6)$

Ⓒ $b + 3 + 6$

Ⓓ $b + (3 \times 6)$

24 The point $(4, -8.5)$ is reflected across the y-axis on a coordinate plane to create a new point. What is the distance between the two points in units?

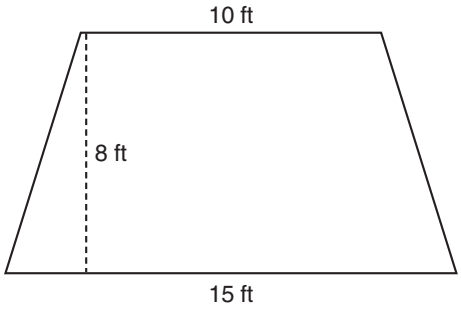
Ⓐ 4.5

Ⓑ 8

Ⓒ 12.5

Ⓓ 17

25 What is the area of the trapezoid shown below?



Ⓐ 200 ft^2

Ⓑ 150 ft^2

Ⓒ 120 ft^2

Ⓓ 100 ft^2

26 Kristina paid $9.15 for 5 pounds of pears. She paid $5.28 for 3 pounds of grapes. Which was the better buy?

Ⓐ The pears because they cost $0.77 less per pound.

Ⓑ The pears because they cost $0.20 less per pound.

Ⓒ The grapes because they cost $0.48 less per pound.

Ⓓ The grapes because they cost $0.07 less per pound.

27 The formula $P = 2\ell + 2w$ can be used to find the perimeter of a rectangle where ℓ is the length and w is the width. What is the perimeter of a rectangular picture frame when $\ell = 12$ in. and $w = 9$ in.?

Ⓐ 25 in.

Ⓑ 33 in.

Ⓒ 42 in.

Ⓓ 84 in.

28 Connor collected the following data on the number of pencils his classmates have in their backpacks.

5, 1, 3, 9, 2, 2, 0, 10, 7

Which measure of central tendency BEST represents the number of pencils his classmates have in their backpacks?

Ⓐ mean

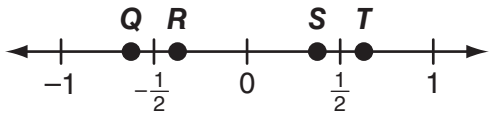
Ⓑ median

Ⓒ mode

Ⓓ range

Name _____

29 Which point on the number line represents $-\frac{3}{8}$?



Ⓐ *Q*

Ⓑ *R*

Ⓒ *S*

Ⓓ *T*

30 Which word BEST describes the 2 in the expression $2x + 3$?

Ⓐ coefficient

Ⓑ variable

Ⓒ product

Ⓓ term