



**THIRD SPACE
LEARNING**

6th Grade CA CSS State Test

State Test Grade 6

Grade 6

Questions

Name:

Class:

Date:

Score:

- 1 A card store has 15 baseball cards and 22 football cards. What is the ratio of baseball cards to total cards?

- A. 15:22
- B. 22:37
- C. 37:15
- D. 15:37

- 2 What is the value of b ?

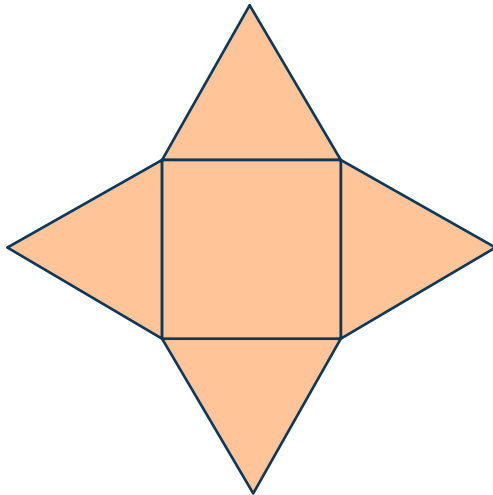


- A. -0.2
- B. -0.3
- C. -0.4
- D. -0.6

3 Which expression is equivalent to $5y - 24$?

- A. $5(y - 19)$
 - B. $3(y - 8) + 2y$
 - C. $8(y - 3) - 2$
 - D. $7(y + 3) - 2y$
-

4



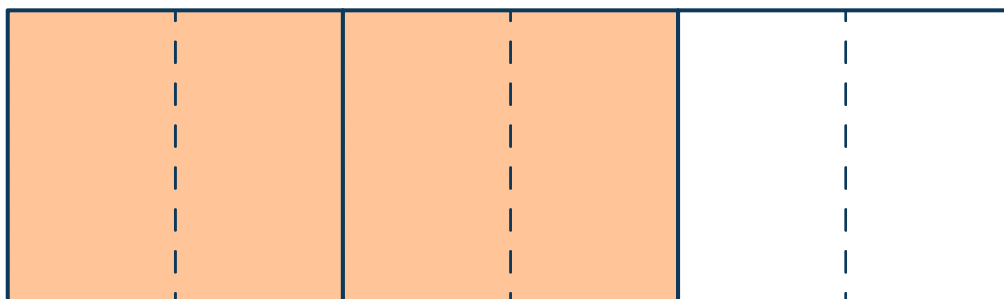
Which shape is formed by the net above?

- A. Triangular pyramid
- B. Triangular prism
- C. Square pyramid
- D. Isosceles triangle

- 5 Cassy makes 6 necklaces with 4 yards of string. How many yards of string does she need for 10 necklaces?

- A. 33 yards of string
- B. $\frac{2}{3}$ yards of string
- C. $6\frac{2}{3}$ yards of string
- D. $4\frac{1}{3}$ yards of string

- 6 Which expressions can be represented by the model? Select all the correct answers.



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

- 7 Isabel needs at least 12 more volunteers to sign up for the event on Tuesday. If v is the number of volunteers, which inequality shows how many Isabel needs?

A. $v \geq 12$
B. $v \leq 12$
C. $v < 12$
D. $v > 12$

- 8 Below are the total scores for the first 5 games Kaleb's soccer team played. Total score: 5, 4, 2, 2, 1.

What is the mean of the total scores?

A. 2.8
B. 7
C. 14
D. 3.1

- 9 A jacket was on sale for 25% off. After the discount, Daniella paid \$31.50 for the jacket. What was the original price?

A. \$15
B. \$21
C. \$10.5
D. \$42

10 Solve $365.92 \div 4.7$.

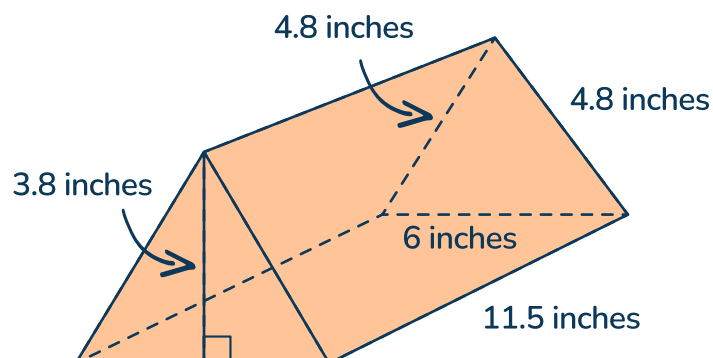
- A. 76.9
- B. 77.855
- C. 75.86
- D. 79.9

11 $\frac{b}{3} = 5$

Which value for b makes the equation true?

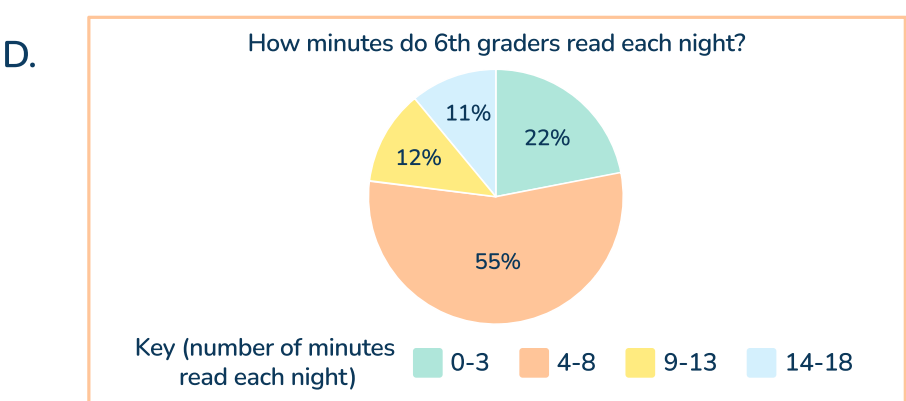
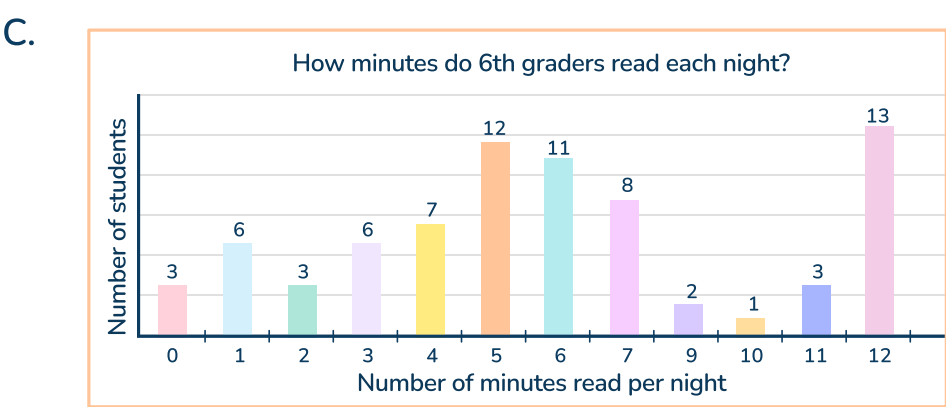
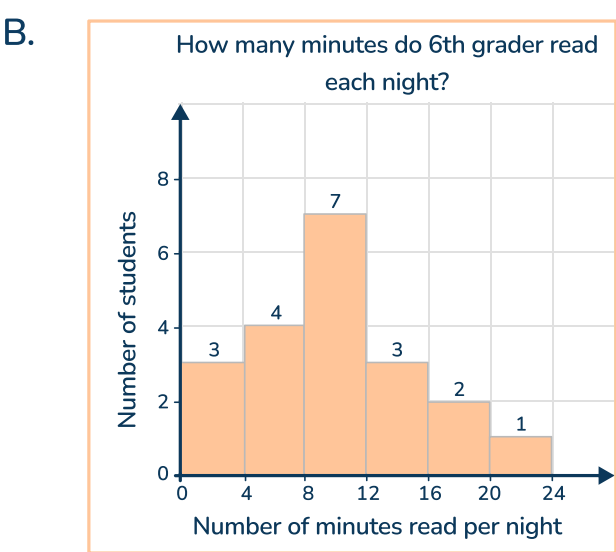
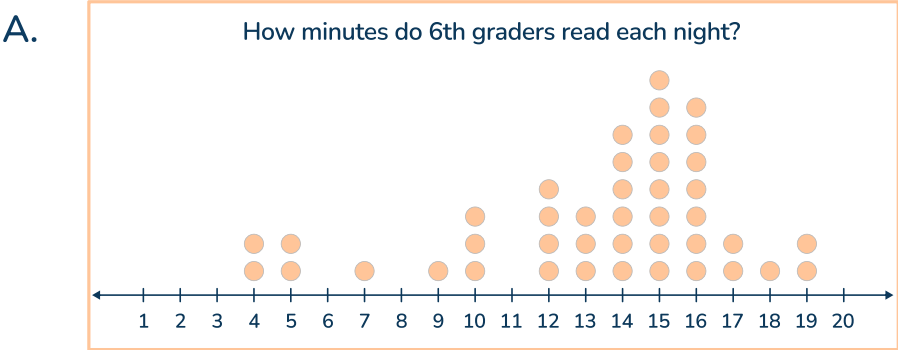
- A. 4
- B. $\frac{1}{4}$
- C. 15
- D. 36

12 Jessem is painting the outside of the box below - an isosceles triangular prism. How many square inches does he paint?



- A. 202.2 inches²
- B. 179.4 inches²
- C. 34.2 inches²
- D. 6041.088 inches²

13 Which graph supports the conclusion that “most 6th graders read between 8 and 12 minutes a night”?



14 Which statement is true?

A. $-6 > -5$

B. $-9 < -12$

C. $3.2 > 3\frac{2}{3}$

D. $7.02 < 7.002$

15 Sasha is collecting data on two water filters.

Water Filter A	
Time (minutes)	Ounces filtered
3	42
4	56
7	98

Water Filter B	
Time (minutes)	Ounces filtered
3	48
6	96
8	128

Which filter is faster and by how many ounces per minute?

- A. Filter A is faster by 2 ounces per minute
- B. Filter B is faster by 2 ounces per minute
- C. Filter A is faster by 4 ounces per minute
- D. Filter B is faster by 17 ounces per minute

- 16 Phillip solved $295.6 \div 22$ using the standard algorithm. What mistake did Phillip make?

	0	1	.	3	4	r.8
22)	2	9	5	.	6
-		0				
		2	9			
-		2	2			
			7	5		
		-	6	6		
				9	6	
			-	8	8	
					8	

- A. Phillip made a subtraction error.
 B. Phillip did not include the remainder.
 C. Phillip's answer has the wrong place value.
 D. Phillip did not make a mistake.

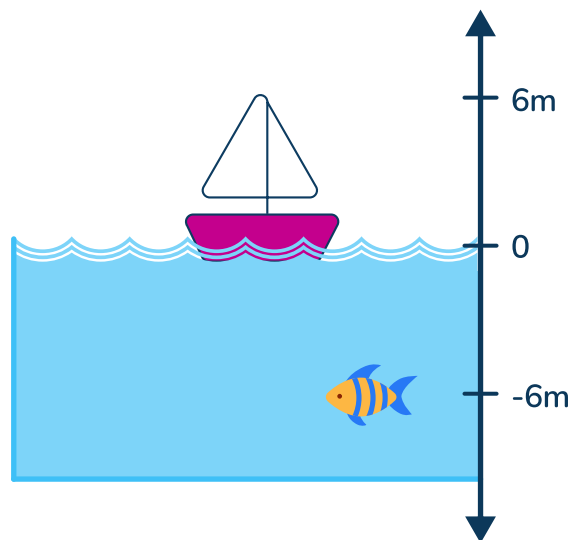
- 17 Samuel is four years older than his cousin Henry. Which equation(s) show the relationship between Samuel's age, s , and Henry's age, h . Select all the correct answers.

- A. $s - 4 = h$
 B. $h + 4 = s$
 C. $s + h = 4$
 D. $s - h = 4$

18 Which of the following is a statistical question?

- A. How many laps did Kenya run in PE today?
 - B. Does Coach Frances make the 6th graders run too many laps?
 - C. What is the average number of laps that the 6th graders run in PE during a day?
 - D. How many 6th graders ran 3 laps today?
-

19 The diagram below shows the location of a sailboat and fish in comparison to sea level.



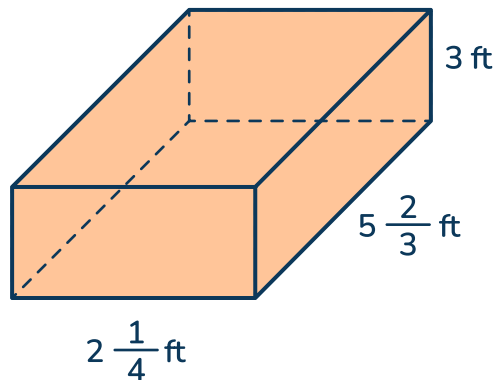
Which statement is true?

- A. The sailboat is 6m higher than the fish.
- B. The fish is 12m below the sailboat
- C. The water the fish is in measures -6 degrees.
- D. The sea level is at 0, with the fish above and the sailboat below.

20 Solve $4(2^2 + 4 - 3) \div \frac{1}{4}$.

- A. 80
 - B. 272
 - C. 35
 - D. 40
-

21 Calculate the volume of the rectangular prism.

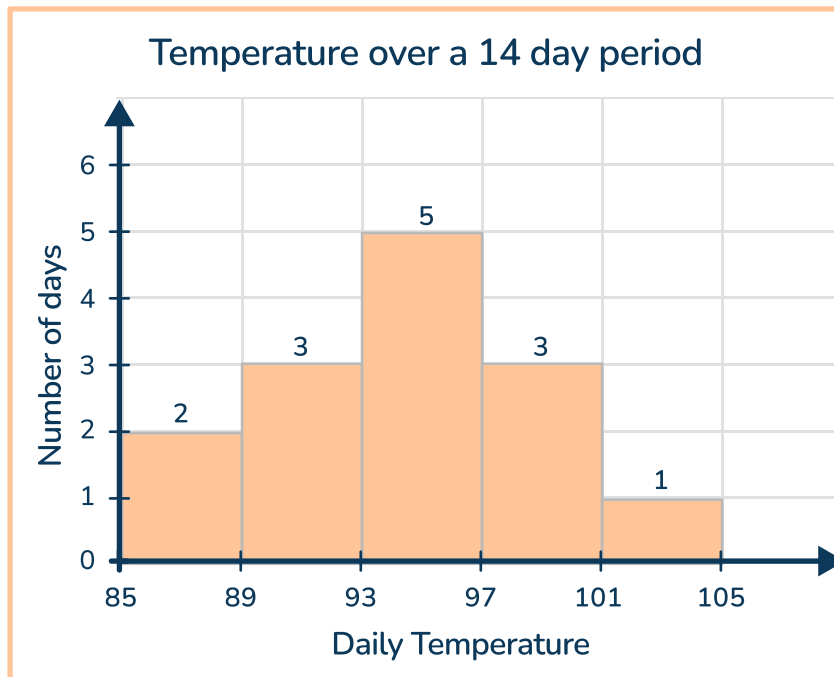


- A. $12\frac{3}{4}$ ft³
- B. $10\frac{3}{7}$ ft³
- C. $42\frac{3}{4}$ ft³
- D. $38\frac{1}{4}$ ft³

- 22 The Girl Scouts are selling cookies for \$6 a box. Ryan wrote the following equation $6x = y$. Which statements correctly describe Ryan's equation within the context? Select all the correct answers.

A. x is the price of one box of cookies
B. 6 is the total number of boxes of cookies sold so far
C. y is the total dollars for x boxes of cookies sold
D. y has only one correct solution
E. $6x$ is the box of cookie price multiplied by the number of boxes sold

23



In the histogram above, which bin has the median data point?

- A. 85-89
B. 89-93
C. 93-97
D. 97-101

24 Are the two expressions equivalent? Why or why not?

$$4b - 5e \quad \text{and} \quad 5e + 4b$$

- A. Yes, because they both have the terms $4b$ and $5e$.
 - B. No, because $-5e$ is not the same as $5e$.
 - C. Yes, because they are both subtracting the same amount, just in a different order.
 - D. No, because equivalent expressions cannot have two variables.
-

25 For every 3 cups of water, there are 4 tablespoons of food coloring. Which statement about the ratio is true?

- A. For every 6 cups of water, there are 7 tablespoons of food coloring.
 - B. There is $\frac{4}{3}$ of a cup of water for every tablespoon of food coloring.
 - C. There is $\frac{3}{4}$ of a cup of water for every tablespoon of food coloring.
 - D. For every 2 cups of water, there are 3 tablespoons of food coloring.
-

26 Sarah is solving the two equations below. She says, "I can just solve expression a, because expression b will have the same answer." Do you agree? Why or why not?

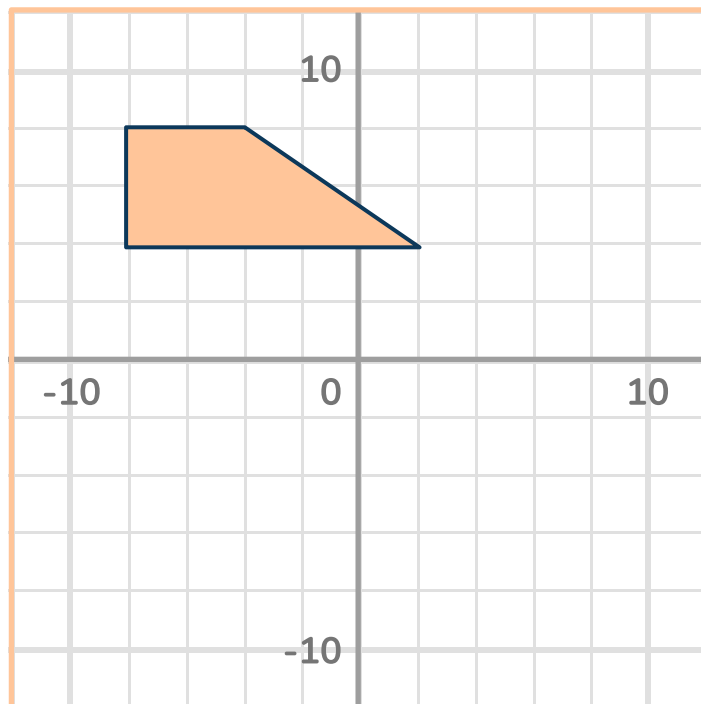
- Expression a: $3(5-27)$
- Expression b: $3 \times 5-27$

- A. Yes, because the order of operations is the same.
- B. No, because expression a will add first and expression b will not.
- C. Yes, because the expressions have the same operations.
- D. No, because expression b will multiply by 3 first and expression a will not.

27 Which expression is equivalent to $63 + 105$?

- A. $7(9 + 15)$
- B. $9 \times 7 + 15$
- C. $7 \times (48 + 90)$
- D. $7(63 + 15)$

28 What is the area of the shape shown?

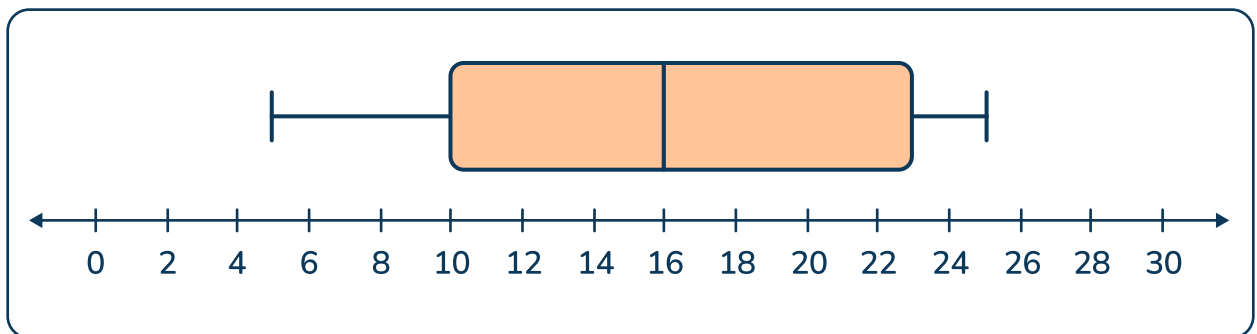


- A. 15.2 units^2
- B. 7 units^2
- C. 28 units^2
- D. 88 units^2

29 Which numbers are solutions for $t \leq -1$.

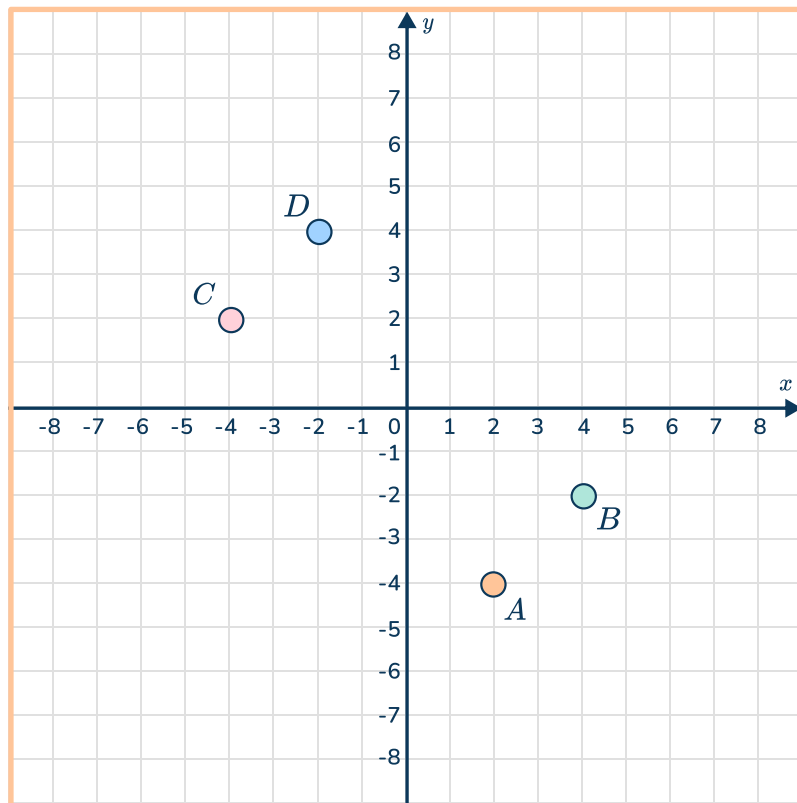
- A. -3
- B. -4
- C. 2
- D. $\frac{1}{12}$
- E. $-\frac{1}{12}$

30 Which statement about the data shown in the box plot below is true?



- A. The range is 20 years and the IQR is 13.
- B. The second half of the data has less variability than the first half.
- C. The median age is 16 years.
- D. At least half the cousins are 16 years old or less.

31 Which point shows the coordinates (4, -2)?

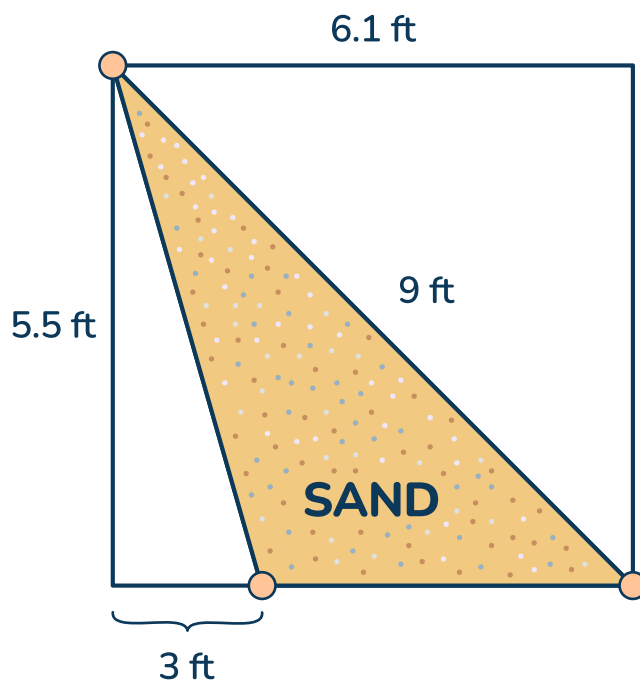


- A. Point A
- B. Point B
- C. Point C
- D. Point D

32 Which expression shows “4 less than the product of c and 5”?

- A. $4 - c \times 5$
- B. $\frac{c}{5} - 4$
- C. $5c - 4$
- D. $4 - 5c$

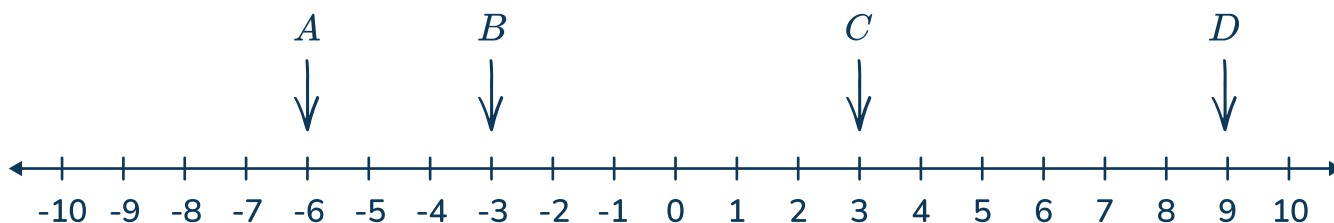
- 33 Bianca is covering a triangular part of her garden with sand. The diagram below shows where Bianca will place the sand.



How many square feet will Bianca cover with sand?

- A. 6.5 ft^2
- B. 8.53 ft^2
- C. 17.12 ft^2
- D. 12.09 ft^2

- 34 Where is $-(-9)$ on the number line?

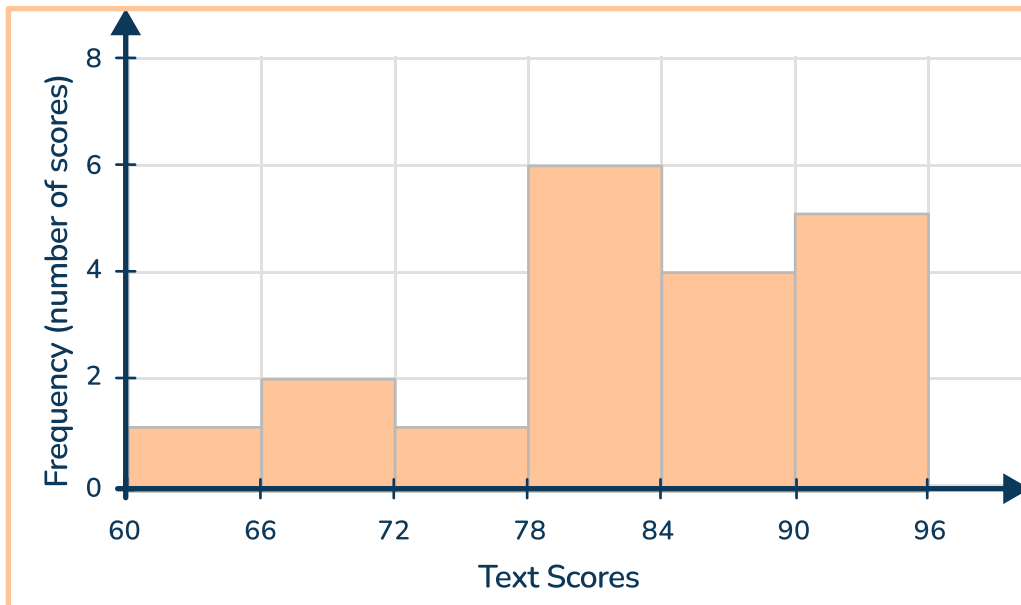


- A. A
- B. B
- C. C
- D. D

- 35 Jeremiah pays \$57 for supplies to make candles. He sells the candles for \$4 each. Which equation shows Jeremiah's profit, p , after selling c candles?

- A. $p = 4c - 57$
- B. $57 + 4c = p$
- C. $c = 4p - 57$
- D. $57 + 4p = b$

36



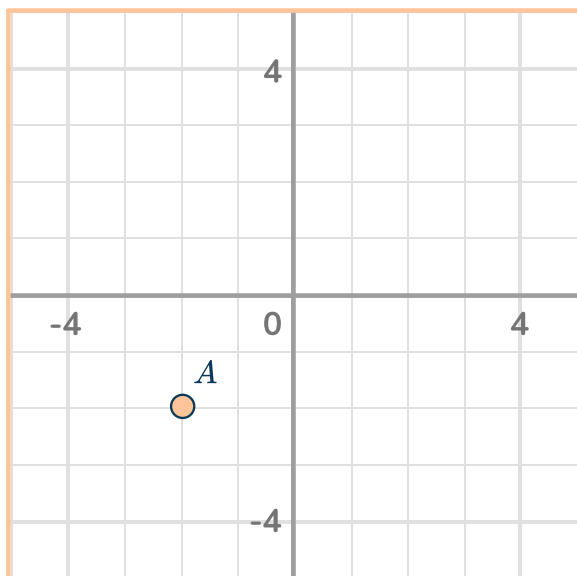
Which statements are true about the data shown in the histogram above?

- A. The graph includes data points for 19 people.
- B. The highest test score is 94.
- C. The lowest test score is 65.
- D. The data is centered around the bin with the median.
- E. Each bar shows 1 test score - with 6 shown in total.

- 37 There are $5\frac{1}{5}$ cups of sugar in the kitchen. If Chef Penny needs $\frac{1}{2}$ of a cup of sugar for each recipe, how many complete recipes can she make?

- A. $10\frac{1}{5}$ recipes
- B. 5 recipes
- C. 10 recipes
- D. 6 recipes

38



Point B:

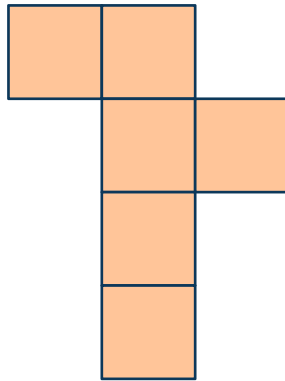
- is in Quadrant 4
- 3.5 units away from Point A

Point C is Point B reflected across the y -axis.

What are the coordinates of Point C?

- A. (-2, 1.5)
- B. (-1.5, -2)
- C. (-2, -2)
- D. (2, 1.5)

- 39 A cube has a side length of 2.6 inches. The net of the cube is shown below.



Ivy folds the cube up and fills it with water. How many cubic inches of water are in the cube?

- A. 40.56 inches²
- B. 17.576 inches³
- C. 17.576 inches²
- D. 40.56 inches³

-
- 40 For the paint color coral, the ratio of ounces of red paint to white paint is 3:1. What is a possible mixture that will create coral?

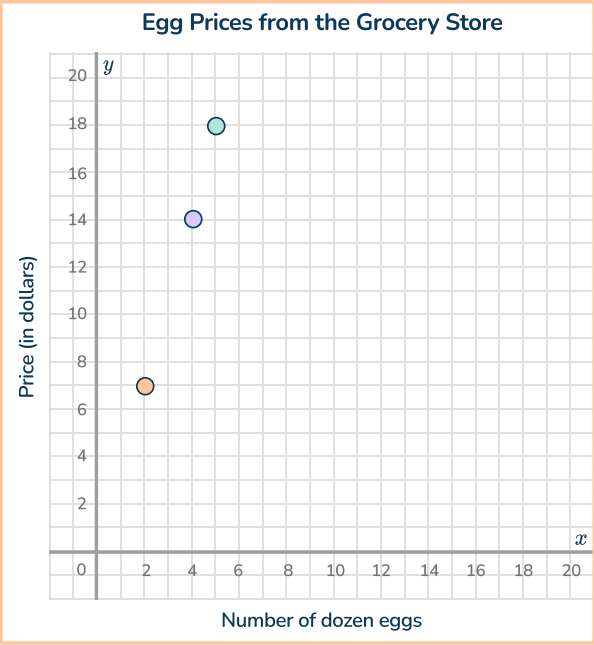
- A. 45 ounces of red and 15 ounces of white
- B. 48 ounces of red and 21 ounces of white
- C. 33 ounces of white and 22 ounces of red
- D. 45 ounces of white and 15 ounces of red

Standard: 6.EE.9, 6.RP.3, 6.EE.7

DOK 3

Short Answer Response - 6 points

- 41
- The graph and table below show information about eggs being sold by a grocery store and by a farmer.



Egg prices from the farmer	
Dozen Eggs	Price
3	\$11.25
6	\$22.50
7	\$26.25

Part A: Which eggs are cheaper per ounce? Explain how you solved.

A Hardware store sells eggs in packages of 6 eggs. They use the equation $2.35p = t$, where p is the number of packages and t is the total price.

Part B: Compare the price of eggs per dozen at the Hardware store to the eggs from Part A? Explain how you solved.

Item	KEY	Rationale
41	6 points	<p>Student correctly calculates the unit egg prices:</p> <ul style="list-style-type: none"> • Grocery store - \$3.50 per dozen • Farmer - \$3.75 per dozen • Hardware store - \$4.70 per dozen <p>Student clearly explains how they found the unit price from the graph, table and equation.</p>
	5 points	<p>Student correctly calculates the unit egg prices:</p> <ul style="list-style-type: none"> • Grocery store - \$3.50 per dozen • Farmer - \$3.75 per dozen • Hardware store - \$4.70 per dozen <p>Student explains how they found the unit price from the graph, table and equation, but some parts of the explanation are incomplete or unclear.</p>
	4 points	<p>Student correctly calculates 2 out of 3 the unit egg prices:</p> <ul style="list-style-type: none"> • Grocery store - \$3.50 per dozen • Farmer - \$3.75 per dozen • Hardware store - \$4.70 per dozen <p>Student explains how they found the unit price from the graph, table and equation.</p>
	3 points	<p>Student correctly calculates 2 out of 3 the unit egg prices:</p> <ul style="list-style-type: none"> • Grocery store - \$3.50 per dozen • Farmer - \$3.75 per dozen • Hardware store - \$4.70 per dozen <p>Student explains how they found the unit price from the graph, table and equation, but some parts of the explanation are incomplete or unclear.</p>
	2 point	<p>Student correctly calculates 1 out of 3 the unit egg prices:</p> <ul style="list-style-type: none"> • Grocery store - \$3.50 per dozen • Farmer - \$3.75 per dozen • Hardware store - \$4.70 per dozen <p>Student explains how they found the unit price from the graph, table and equation, but some parts of the explanation are incomplete or unclear.</p>

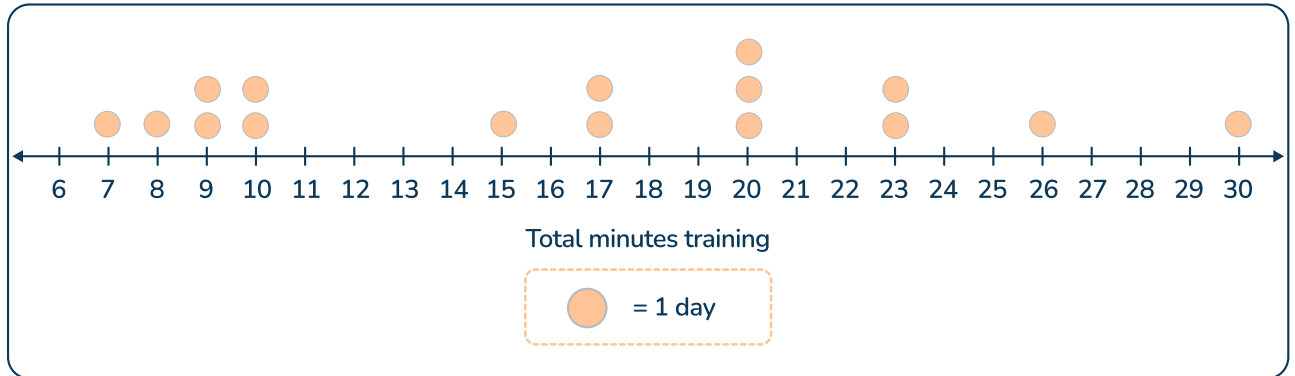
Item	KEY	Rationale
	1 point	<p>Student miscalculates all of the unit egg prices:</p> <ul style="list-style-type: none">• Grocery store - \$3.50 per dozen• Farmer - \$3.75 per dozen• Hardware store - \$4.70 per dozen <p>Student explains how they attempted to find the unit price from the graph, table and equation, but some parts of the explanation are incomplete or unclear.</p>
	0 points	<p>Response is blank or does not include any correct calculations or explanations.</p>

Extended response - 6 points

Standard: 6.SP.2, 6.SP.3, 6.SP.5, 6.NS.3

DOK 3

- 42 Natasha is training her new puppy. Each day she records how many minutes she spends training her puppy.



Part A:

Calculate the following measures of center and spread of the data set.

Mean: _____ Median: _____ Mode: _____ Range: _____

Part B: When Natasha started, her goal was to train for 16 minutes, on average. Is she meeting her goal? Why or why not?

Item	KEY	Rationale
42	6 points	<p>Student correctly calculates:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student correctly describes the overall spread, connecting both the center and spread to Natasha's goal.</p> <p>For example, "Natasha's mean is meeting the goal, but the median is not. The value of the mean is larger because it was affected by the few weeks on the right with a large amount of words learned. The median is lower than Natasha's goal, since most of her days are between 6 and 17." *Response may vary, but should clearly explain the connection between the measures of center and spread.</p>
	5 point	<p>Student correctly calculates:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student describes the overall spread, connecting both the center and spread to Natasha's goal, but some parts may be incomplete or unclear.</p>
	4 points	<p>Student correctly calculates 3 out of 4:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student correctly describes the overall spread, connecting both the center and spread to Natasha's goal.</p>

Item	KEY	Rationale
	3 points	<p>Student correctly calculates 3 out of 4:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student describes the overall spread, connecting both the center and spread to Natasha's goal, but some parts may be incomplete or unclear.</p>
	2 points	<p>Student correctly calculates 2 out of 4:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student attempts to describe the overall spread, connecting both the center and spread to Natasha's goal, but most parts are incomplete or unclear.</p>
	1 points	<p>Student correctly calculates 1 out of 4:</p> <ul style="list-style-type: none"> • Mean - 16.5 • Median - 17 • Mode - 20 • Range - 23 <p>Student describes the overall spread, connecting both the center and spread to Natasha's goal, but some parts may be incomplete or unclear.</p>
	0 points	<p>Response is blank or does not include any correct calculations or explanations.</p>

Answer Key - Multiple Choice

Item number	Correct answer	Domain	Target	DOK	CCSS-MC
1	D	RP	A	DOK 1	6.RP.1
2	C	NS	D	DOK 1	6.NS.6c
3	B	EE	E	DOK 2	6.EE.3
4	C	G	H	DOK 1	6.G.4
5	C	RP	A	DOK 2	6.RP.3b
6	A, B	NS	B	DOK 3	6.NS.1
7	A	EE	F	DOK 2	6.EE.8
8	A	SP	J	DOK 1	6.SP.5.b
9	D	RP	A	DOK 2	6.RP.3c
10	B	NS	C	DOK 1	6.NS.3
11	C	EE	F	DOK 1	6.EE.5
12	A	G	H	DOK 2	6.G.4
13	B	SP	J	DOK 2	6.SP.4, 6.SP.5c
14	B	NS	D	DOK 1	6.NS.7
15	B	RP	A	DOK 2	6.RP.3a, 6.RP.3b
16	C	NS	C	DOK 3	6.NS.2
17	A, B, D	EE	F	DOK 2	6.EE.6, 6.EE.7
18	C	SP	I	DOK 1	6.SP.1
19	A	NS	D	DOK 2	6.NS.5

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Item number	Correct answer	Domain	Target	DOK	CCSS-MC
20	A	EE	E	DOK 1	6.EE.1
21	D	G	H	DOK 1	6.G.2
22	C, E	EE	G	DOK 2	6.EE.9
23	C	SP	I, J	DOK 1	6.SP.3, 6.SP.5c
24	B	EE	E	DOK 3	6.EE.4
25	C	RP	A	DOK 2	6.RP.1, 6.RP.2, 6.RP.3
26	D	EE	E	DOK 2	6.EE.1
27	A	NS	C	DOK 1	6.NS.4
28	C	G	H	DOK 2	6.G.1, 6.G.3
29	A, B	EE, ND	F	DOK 1	6.EE.8, 6.NS.7a
30	A, C, D	SP	J	DOK 2	6.SP.4, 6.SP.5c, 6.SP.5d
31	B	NS	D	DOK 1	6.NS.8
32	C	EE	E	DOK 1	6.EE.2
33	B	G	H	DOK 2	6.G.1
34	D	NS	D	DOK 1	6.NS.6a
35	A	EE	G	DOK 2	6.EE.9
36	A, D	SP	I, J	DOK 2	6.SP.2, 6.SP.4, 6.SP.5b
37	C	NS	B	DOK 2	6.NS.1
38	B	NS	D	DOK 2	6.NS.8
39	B	G	H	DOK 2	6.G.2
40	A	RP	A	DOK 1	6.RP.1, 6.RP.3

ANSWERS SORTED BY CCSS STRAND

RP (4 - 9)			
1	D	6.RP.1	DOK 1
5	C	6.RP.3b	DOK 2
9	D	6.RP.3c	DOK 2
15	B	6.RP.3a, 6.RP.3b	DOK 2
25	C	6.RP.1, 6.RP.2, 6.RP.3	DOK 2
40	A	6.RP.1, 6.RP.3	DOK 1

NS (9 - 11)			
2	C	6.NS.6c	DOK 1
6	A, B	6.NS.1	DOK 3
10	B	6.NS.3	DOK 1
14	B	6.NS.7	DOK 1
16	C	6.NS.2	DOK 3
19	A	6.NS.5	DOK 2
27	A	6.NS.4	DOK 1
31	B	6.NS.8	DOK 1
34	D	6.NS.6a	DOK 1
37	C	6.NS.1	DOK 2
38	B	6.NS.8	DOK 2

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EE (11 - 16)			
3	B	6.EE.3	DOK 2
7	A	6.EE.8	DOK 2
11	C	6.EE.5	DOK 1
17	A, B, D	6.EE.6, 6.EE.7	DOK 2
20	A	6.EE.1	DOK 1
22	C, E	6.EE.9	DOK 2
24	B	6.EE.4	DOK 3
26	D	6.EE.1	DOK 2
29	A, B	6.EE.8, 6.NS.7a	DOK 1
32	C	6.EE.2	DOK 1
35	A	6.EE.9	DOK 2

G (5 - 7)			
4	C	6.G.4	DOK 1
12	A	6.G.4	DOK 2
21	D	6.G.2	DOK 1
28	C	6.G.1, 6.G.3	DOK 2
33	B	6.G.1	DOK 2
39	B	6.G.2	DOK 2




SP (7 - 11)			
8	A	6.SP.5.b	DOK 1
13	B	6.SP.4, 6.SP.5c	DOK 2
18	C	6.SP.1	DOK 1
23	C	6.SP.3, 6.SP.5c	DOK 1
30	A, C, D	6.SP.4, 6.SP.5c, 6.SP.5d	DOK 2
36	A	6.SP.2, 6.SP.4, 6.	DOK 2

Do you have a group of students who need a boost in math?

Each student could receive a personalized lesson every week from our specialist one-on-one math tutors.

- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standard
- ✓ Scaffolded learning to close gaps

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