THIRD SPACE LEARNING

6th Grade Tennessee State Practice Math Test

Tennessee Practice Test Grade 6

Grade 6

Questions

Name: ..... Class: .....

Date: ..... Score: .....

No Calculator For Questions 1 - 21

1 A grocery store has 15 red apples and 31 green apples. What is the ratio of green apples to total apples?

A. 15:31
B. 31:15
C. 46:31
D. 31:46

2 What is the value of a?

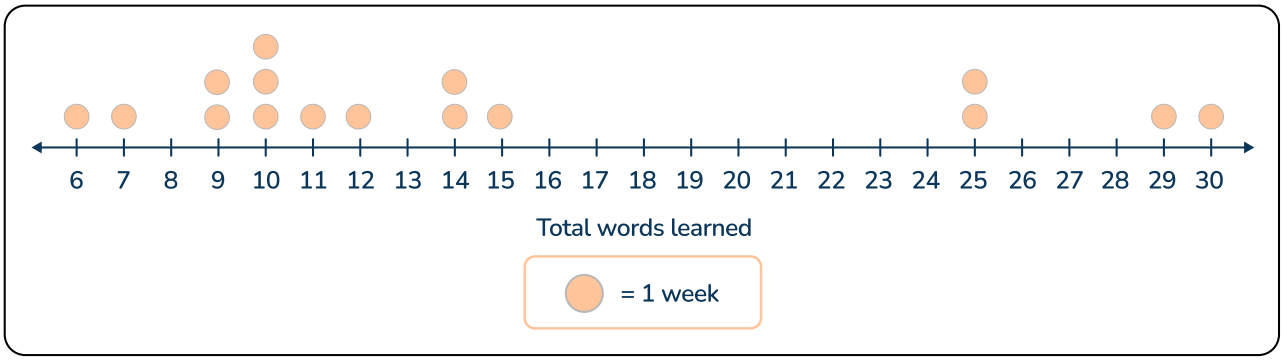
A. -0.2
B. –1.2
C. 0.3
D. 0

3 Which expression is equivalent to $7x + 30$?

A. $6(x + 5) + x$
B. $7(x + 30)$
C. $6(x + 7) - 12$
D. $7(x + 4) + 2x$

---

4 Milek is learning new words in French. Each week he records how many words he has learned.



What is the median number of words Milek learned in a week?

A. 10
B. 11
C. 11.5
D. 12

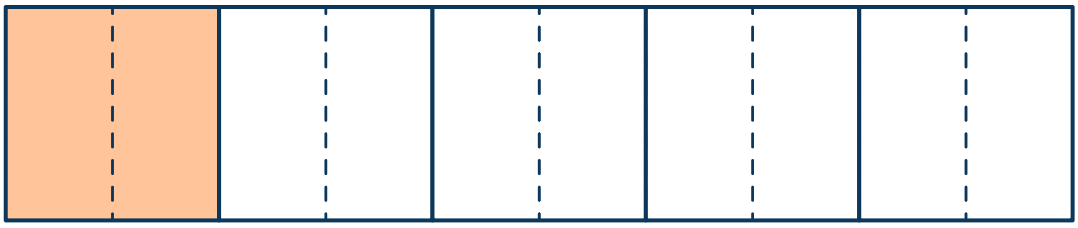
5 Kyden uses 6 cups of flour to make 15 muffins. How many cups of sugar will Kyden need to make 25 muffins?

Write your answer in the box provided.

Answer

---

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



A. $\frac{1}{6} \div \frac{1}{12}$

B. $\frac{1}{12} \div \frac{1}{6}$

C. $\frac{1}{12} \div \frac{2}{12}$

D. $\frac{2}{12} \div \frac{1}{6}$

E. $\frac{2}{6} \div \frac{1}{12}$

7 Fatima needs more than 25 more volunteers to sign up for the event on Tuesday. If v is the number of volunteers, which inequality shows how many Fatima needs?

A. $v \geq 25$
B. $v \leq 25$
C. $v < 25$
D. $v > 25$

---

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

- Expression a: $(9 + 145)^3$
- Expression b: $9 + 145^3$

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 same numbers and the same steps to solve.
D. No, because expression b will multiply by 3 first and expression a will not.

9 Which expressions are equivalent to 48 + 80? Select the **two** correct answers.

A. (48 + 80) × 16
B. 4 × 12 + 20
C. (24 + 40) × 2
D. 6 + 10 × 8
E. 16(3 + 5)

10 Solve 5,007.6 ÷ 52 = ___

Write your answer in the box provided.

Answer

11 $12x = 3$

Which value for b makes the equation true?

A. 4

B. $\frac{1}{4}$

C. 15

D. 36

---

12 A baker has $5\frac{3}{4}$ pounds of flour. He uses $\frac{1}{2}$ pound of flour for each loaf of bread. How many complete loaves of bread can he make?

Write your answer in the box provided.

Answer

13 Devram plotted a point at (5, –3) on the coordinate plane. Which of the following best describes this point?

A. 5 units to the left of the origin, 3 units above the x -axis
B. 5 units to the right of the origin, 3 units below the x -axis
C. 3 units to the right of the origin, 5 units below the x -axis
D. 5 units to the left of the origin, 3 units below the x -axis

14 Which statement is true?

A. $11.05 < 11.005$
B. $-9 < -10$
C. $7.7 > 7\frac{3}{4}$
D. $-8 > -21$

15 $m + 3.26 = 9.071$

Find the value for m that makes the equation true.

Write your answer in the box provided.

Answer

---

16 Solve $1.78 \times 2.3 =$ ____

Write your answer in the box provided.

Answer

17 Mina is five years older than her brother Evan. Which equations show the relationship between Mina's age, m, and Evan's age, e? Select all the correct answers.

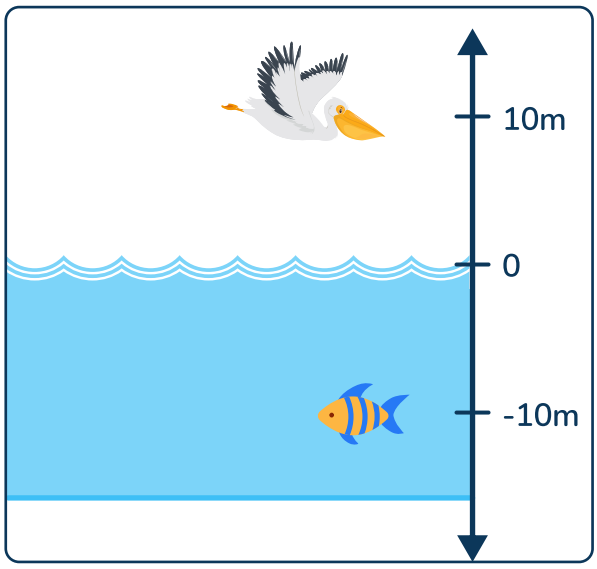
A. $e - 5 = m$
B. $e + 5 = m$
C. $m - 5 = e$
D. $m + e = 5$
E. $m - e = 5$

---

18 Which of the following is a statistical question?

A. What is the temperature outside today?
B. Does Efren think the temperature outside is too hot?
C. What is the temperature outside each day this week?
D. How many days has the temperature outside been above 74°?

19 The picture below shows the location of a seagull and fish compared to sea level.



Which statement is true?

A. The seagull is $10m$ higher than the fish.
B. The fish is in the opposite position as the seagull.
C. The water the fish is in measures -10 degrees.
D. The sea level is at 0, with the fish above and the seagull below.

20 Which expressions are equal to 4^6? Select all the correct answers.

A. 4×6
B. $6 \times 6 \times 6 \times 6$
C. $4 \times 4 \times 4 \times 4 \times 4 \times 4$
D. $4^4 \times 6 \times 6$
E. $4^4 \times 4 \times 4$

---

21 Solve $5.6 - 3.041 =$ ___

Write your answer in the box provided.

Answer

THIS IS THE END OF SUBPART 1 OF THE MATH PRACTICE TEST.

Calculator Can Be Used For Questions 22 - 45

YOU MAY USE A CALCULATOR IN SUBPART 2 OF THIS TEST.

---

22 The student council is selling tickets to the school dance for $3. Ikem wrote the following equation: $3x = y$.

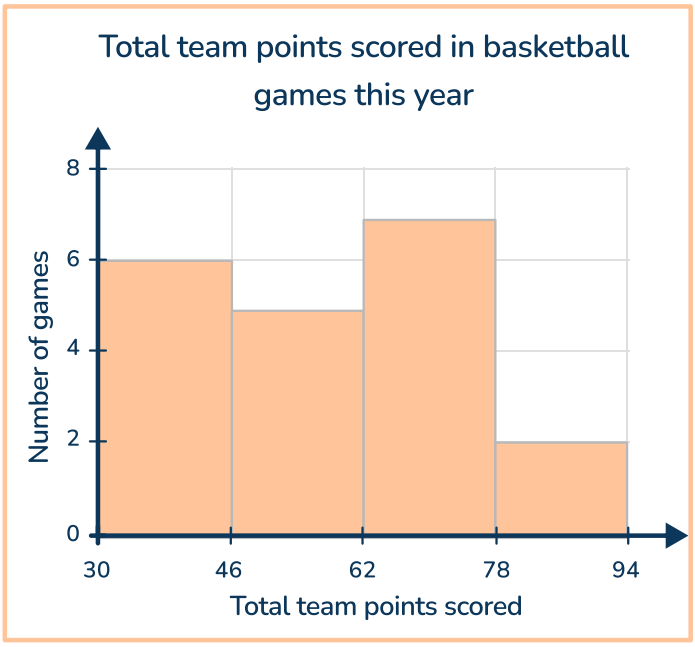
Which statements correctly describe Ikem's equation within the context? Select all the correct answers.

A. x is the price of one ticket
B. y is the total dollars for x tickets sold
C. 3 is the total number of tickets sold so far
D. $3x$ is the ticket price multiplied by the tickets sold
E. y has only one correct solution

---

23 In the histogram below, which bin has the median data point?

A. 30-46
B. 46-62
C. 62-78
D. 78-94



24 Which **two** expressions are equivalent?

A. $5x + 6 + 3x$
B. $4x\ (x + 2) + x$
C. $2 + 10x + 2x$
D. $8(x + 1) - 2$
E. $3(5x + 2)$

25 For every 3 cups of water, there are 7 tablespoons of plant food. Which **two** statements about the ratio are true?

A. For every 7 cups of water, there are 3 tablespoons of plant food.
B. There is $\frac{3}{7}$ of a cup of water for every tablespoon of plant food.
C. For every 9 cups of water, there are 21 tablespoons of plant food.
D. There is $\frac{7}{3}$ of a cup of water for every tablespoon of plant food.
E. For every 6 cups of water, there are 10 tablespoons of plant food.

26 Below are the total scores for the first 5 games Annabelle's basketball team played.

Total score: 45, 32, 55, 61, 38

What is the mean of the total scores?

Write your answer in the box provided.

Answer

27 A pair of sunglasses were on sale for 25% off. After the discount, Kyla paid $27 for the pair of shoes. What was the original price?

A. $9
B. $36
C. $18
D. $33.75

28 What is the GCF of 70 and 42?

Write your answer in the box provided.

Answer

---

29 Which numbers are solutions for $p \geq -4$? Select all the correct answers.

A. -1

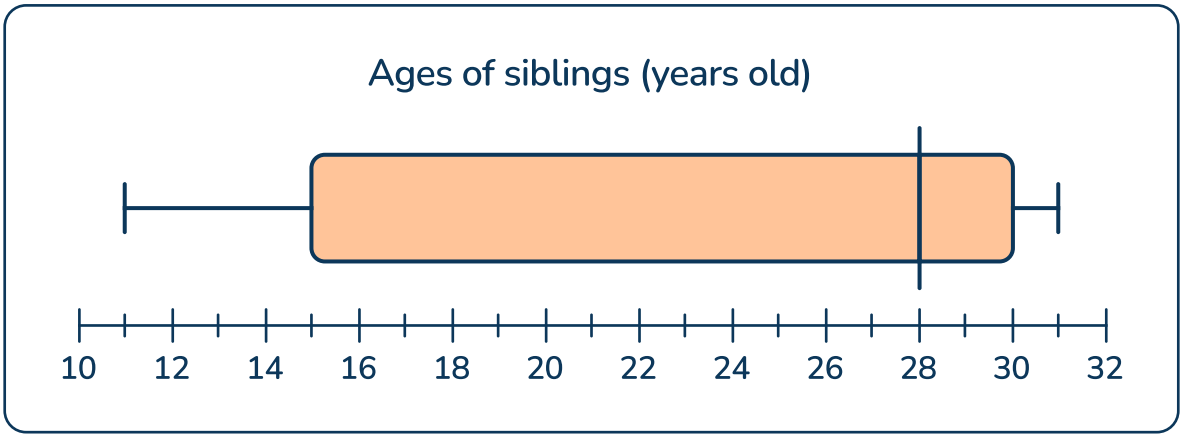
B. -4

C. -12

D. $-4\frac{1}{2}$

E. $4\frac{1}{2}$

30

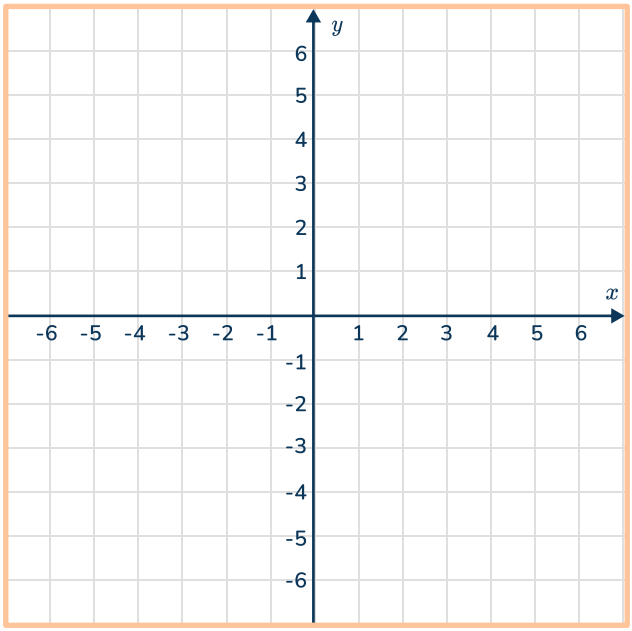


Which statement about the box plot is true?

A. The range is 11–31 years old.
B. The bottom 50% of the data has the most variability.
C. The median age is 15 years old.
D. At least half the siblings are 30 years old or more.

31 **Part A**

On the coordinate plane, plot the vertices (–4, –3), (4, –3) and (0, 4) to create a triangle.



Part B

What is the area of the triangle?

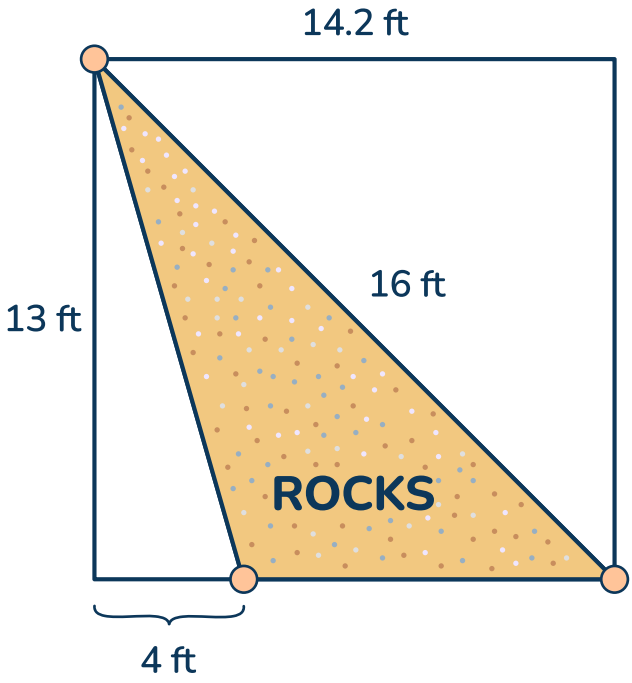
Write your answer in the box provided.

Answer

32 Which expression shows “5 less than the product of m and 3”?

A. $5 - m \div 3$
B. $m \div 3 - 5$
C. $3m - 5$
D. $5 - 3m$

33 Kenzo is covering a triangular part of his garden with rocks. The diagram below shows where Kenzo will place the rocks.



How many square feet will Kenzo cover with rocks?

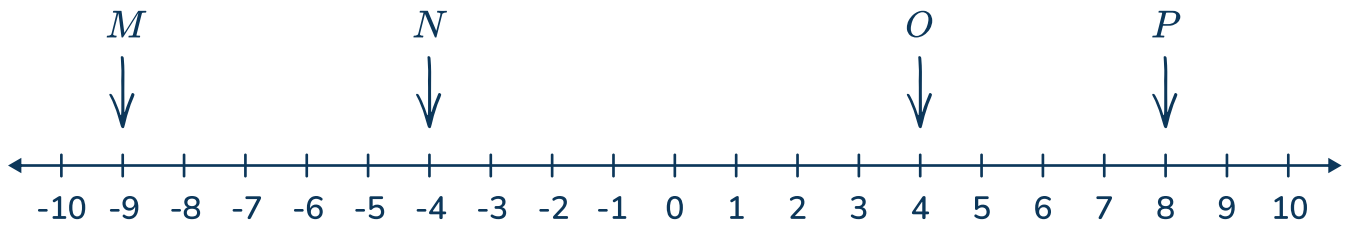
Write your answer in the box provided.

Answer

THIS IS THE END OF SUBPART 2 OF THE MATH PRACTICE TEST.

YOU MAY USE A CALCULATOR IN SUBPART 3 OF THIS TEST.

34 Where is -(-4) on the number line?

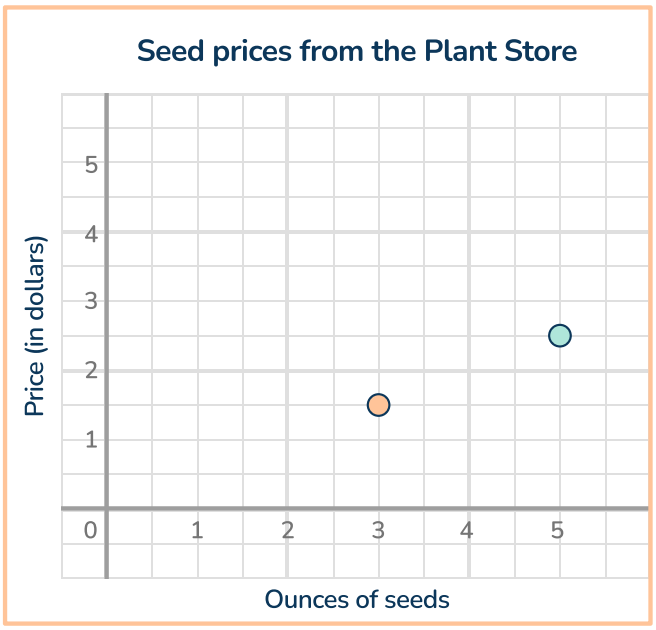


35 A farmer has 35.6 pounds of tomatoes to share equally among x grocery stores. Write an equation that finds the pounds of tomatoes each grocery store gets, y.

Write your answer in the box provided.

Answer

36 The graph, table and equation show the price of seeds sold at different places.



Seed prices from the farmer	
Ounces of seeds	Price
4	$2.80
5	$3.50
8	$5.60

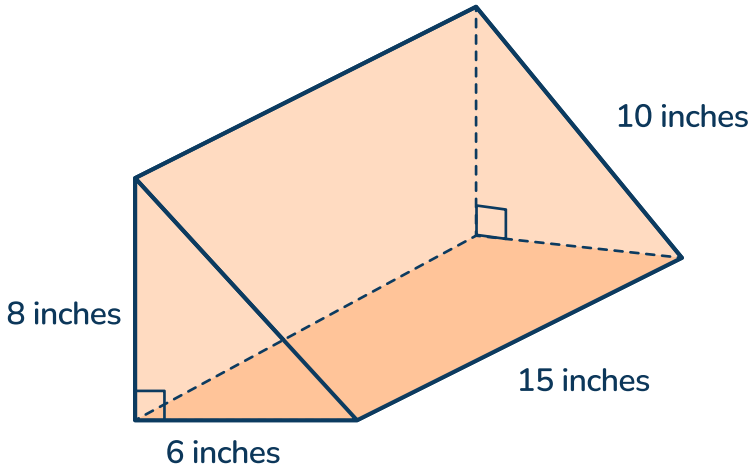
Seed prices from the Website

$0.65x = y$ where y is the price for x ounces of seed

Where are the seeds cheapest per ounce?

A. The Plant Store
B. The Farmer
C. The Website
D. The seeds are the same price at all three places

37 A toy company designs the gift box below.



How much material, in square centimeters, is needed to make the gift box?

Write your answer in the box provided.

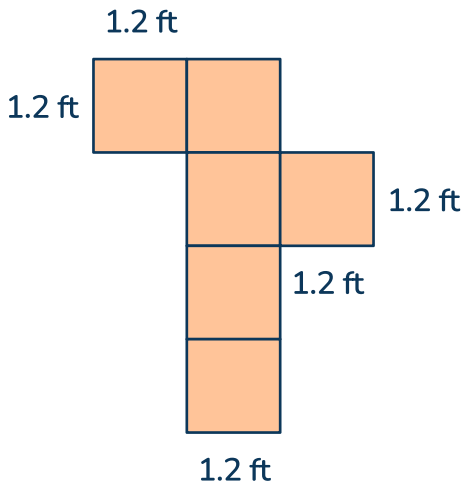
Answer

---

38 On the coordinate plane, what is the distance from point R(7, 9) to point T(–1, 9)?

A. 9 units
B. 6 units
C. 8 units
D. 2 units

39 The net of a prism shaped container is shown below.



Tallulah folds the net up and fills the container with water. How much water is in the container? Round the answer to the nearest tenth.

A. 8.6 feet^2
B. 1.7 feet^3
C. 6 feet^3
D. 2.5 feet^2

---

40 For the paint color dark pink, the ratio of ounces of red paint to white is 3:5. What is a possible mixture that will create dark pink?

A. 75 ounces of white paint and 45 ounces of red paint
B. 53 ounces of red paint and 55 ounces of white paint
C. 36 ounces of white paint and 50 ounces of red paint
D. 39 ounces of red paint and 70 ounces of red paint

41 How are the coordinate plane points (4,5) and (–4, –5) related?

A. They are in the same quadrant.
B. Reflect one across the y-axis to get the other.
C. Reflect one across the x-axis to get the other.
D. They are the same points.

42 Solve $5x + 3$ for when $x = \frac{2}{3}$.
Write your answer in the box provided.

Answer

43 Cassidy is collecting data on two water filters.

Water Filter A	
Time (minutes)	Ounces filtered
3	84
4	112
7	196

Water Filter B	
Time (minutes)	Ounces filtered
2	58
5	145
6	174

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

A. Filter B is faster by 1 ounce per minute
B. Filter A is faster by 26 ounces per minute
C. Filter B is faster by 17 ounces per minute
D. Filter A is faster by 16 ounces per minute

---

44 Solve $6(9^2 - 43 + 2) \div \frac{1}{2}$.

Write your answer in the box provided.

Answer

45 $|-9| = 9$ and $|9| = 9$

Which statement about the equations above is true?

A. –9 and 9 are the same distance from 0

B. –9 and 9 are equal

C. –9 and 9 are located at the same place on the number line

D. –9 is greater than 9

THIS IS THE END OF THE TEST.

Answer Key - Multiple Choice

Item number	Correct answer	Standard(s)	DOK
1	D	**6.RP.A.1**	DOK 1
2	A	**6.NS.C.6c**	DOK 2
3	A	**6.EE.A.3**	DOK 2
4	O	**6.SP.A.3**	DOK 1
5	10	**6.RP.A.3b**	DOK 2
6	A, D	**6.NS.A.1**	DOK 3
7	D	**6.EE.B.8**	DOK 2
8	B	**6.EE.A.1**	DOK 2
9	C, E	**6.NS.B.4**	DOK 1
10	96.3	**6.NS.B.2**	DOK 1
11	B	**6.EE.B.5**	DOK 1
12	11	**6.NS.A.1**	DOK 2
13	B	**6.NS.C.8**	DOK 2
14	D	**6.NS.C.7b**	DOK 1
15	5.811	**6.EE.B.7**	DOK 1
16	4.094	**6.NS.B.3**	DOK 3
17	B, C, E	**6.EE.B.6**	DOK 2
18	C	**6.SP.A.1**	DOK 1
19	B	**6.NS.C.5**	DOK 2

Item number	Correct answer	Standard(s)	DOK
20	C, E	**6.EE.A.1**	DOK 1
21	2.559	**6.NS.B.3**	DOK 1
22	B, D	**6.EE.C.9**	DOK 2
23	B	**6.SP.B.5c**	DOK 1
24	A, D	**6.EE.C.4**	DOK 2
25	B, C	**6.RP.A.2, 6.RP.A.3a**	DOK 2
26	46.2	**6.SP.A.3**	DOK 1
27	B	**6.RP.A.3c**	DOK 2
28	14	**6.NS.B.4**	DOK 1
29	A, B, E	**6.EE.B.8**	DOK 1
30	B	**6.SP.B.4**	DOK 2
31	triangle drawn with vertices (–4, –3), (4, –3) and (0, 4); Area = 28	**6.G.A.1, 6.G.A.3**	DOK 2
32	C	**6.EE.A.2**	DOK 1
33	66.3	**6.G.A.1**	DOK 2
34	C	**6.NS.C.6a**	DOK 1
35	$35.6 \div x = y$	**6.EE.C.9**	DOK 2
36	A	**6.RP.A.3b**	DOK 2
37	408	**6.G.A.4**	DOK 2
38	C	**6.NS.C.8**	DOK 2

Item number	Correct answer	Standard(s)	DOK
39	B	**6.G.A.2**	DOK 2
40	A	**6.RP.A.1, 6.RP.A.3**	DOK 2
41	C	**6.NS.C.6b**	DOK 2
42	$6\frac{1}{3}$ or equivalent	**6.EE.A.2**	DOK 1
43	A	**6.RP.A.3b**	DOK 2
44	480	**6.EE.A.1**	DOK 1
45	A	**6.NS.C.7c**	DOK 1

ANSWERS SORTED BY REPORTING CATEGORY

Number Relationships (6.NS.A, 6.NS.B, 6.NS.C)			
2	A	**6.NS.C.6c***	DOK 2
6	A, D	**6.NS.A.1***	DOK 3
9	C, E	**6.NS.B.4**	DOK 1
10	96.3	**6.NS.B.2**	DOK 1
12	11	**6.NS.A.1***	DOK 2
14	D	**6.NS.C.7b***	DOK 1
13	B	**6.NS.C.8***	DOK 2
16	4.094	**6.NS.B.3**	DOK 3
19	B	**6.NS.C.5***	DOK 2
21	2.559	**6.NS.B.3**	DOK 1
28	14	**6.NS.B.4**	DOK 1
34	C	**6.NS.C.6a***	DOK 1
38	C	**6.NS.C.8***	DOK 2
41	C	**6.NS.C.6b***	DOK 2
45	A	**6.NS.C.7c***	DOK 1

Expressions and Equations (6.EE.A, 6.EE.B, 6.EE.C)			
3	A	**6.EE.A.3***	DOK 2
7	D	**6.EE.B.8***	DOK 2
8	B	**6.EE.A.1***	DOK 2
11	B	**6.EE.B.5***	DOK 1
15	5.811	**6.EE.B.7***	DOK 1
17	B, C, E	**6.EE.B.6***	DOK 2
20	C, E	**6.EE.A.1**	DOK 1
22	B, D	**6.EE.C.9***	DOK 2
24	A, D	**6.EE.C.4***	DOK 2
29	A, B, E	**6.EE.B.8***	DOK 1
32	C	**6.EE.A.2***	DOK 1
35	$35.6 \div x = y$	**6.EE.C.9***	DOK 2
42	$6\frac{1}{3}$ or equivalent	**6.EE.A.2***	DOK 1
44	480	**6.EE.A.1***	DOK 1

Ratios and Rates (6.RP.A) 6–8			
1	D	**6.RP.A.1***	DOK 1
5	10	**6.RP.A.3b***	DOK 2
25	B, C	**6.RP.A.2*, 6.RP.A.3a***	DOK 2
27	B	**6.RP.A.3c***	DOK 2
36	A	**6.RP.A.3b***	DOK 2
40	A	**6.RP.A.1*, 6.RP.A.3***	DOK 2
43	A	**6.RP.A.3b***	DOK 2

Geometry and Data (6.G.A, 6.SP.A, 6.SP.B)			
4	C	**6.SP.A.3**	DOK 1
18	C	**6.SP.A.1**	DOK 2
23	B	**6.SP.B.5c**	DOK 1
26	46.2	**6.SP.A.3**	DOK 1
30	B	**6.SP.B.4**	DOK 2
31	triangle drawn with vertices (–4, –3), (4, –3) and (0, 4); Area = 28	**6.G.A.1, 6.G.A.3**	DOK 2
33	66.3	**6.G.A.1**	DOK 2
37	408	**6.G.A.4**	DOK 2
39	B	**6.G.A.2**	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

Speak to us

thirdspacelearning.com/us/

(929) 298 - 4593

hello@thirdspacelearning.com

THIRD SPACE LEARNING