



THIRD SPACE
LEARNING

6th Grade New Jersey State Practice Math Test

New Jersey Practice Test Grade
6

Grade 6

Questions

Name: Class:

Date: Score:

Unit 1: There are 2 Sections in this unit.

Section 1 (Non-Calculator):
14 questions

- 1
- A grocery store has 23 red apples and 38 green apples. What is the ratio of green apples to total apples?
- A. 23:38
- B. 38:23
- C. 61:38
- D. 38:61

- 2
- What is the value of a ? Place your answer in the space provided.

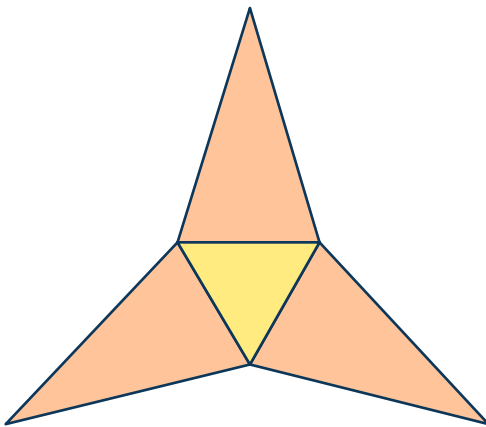


$a =$ _____

3 Which expression is equivalent to $8x + 28$?

- A. $8(x + 20)$
- B. $7(x + 4) + x$
- C. $8(x + 4) + 4$
- D. $7(x + 3) + x$

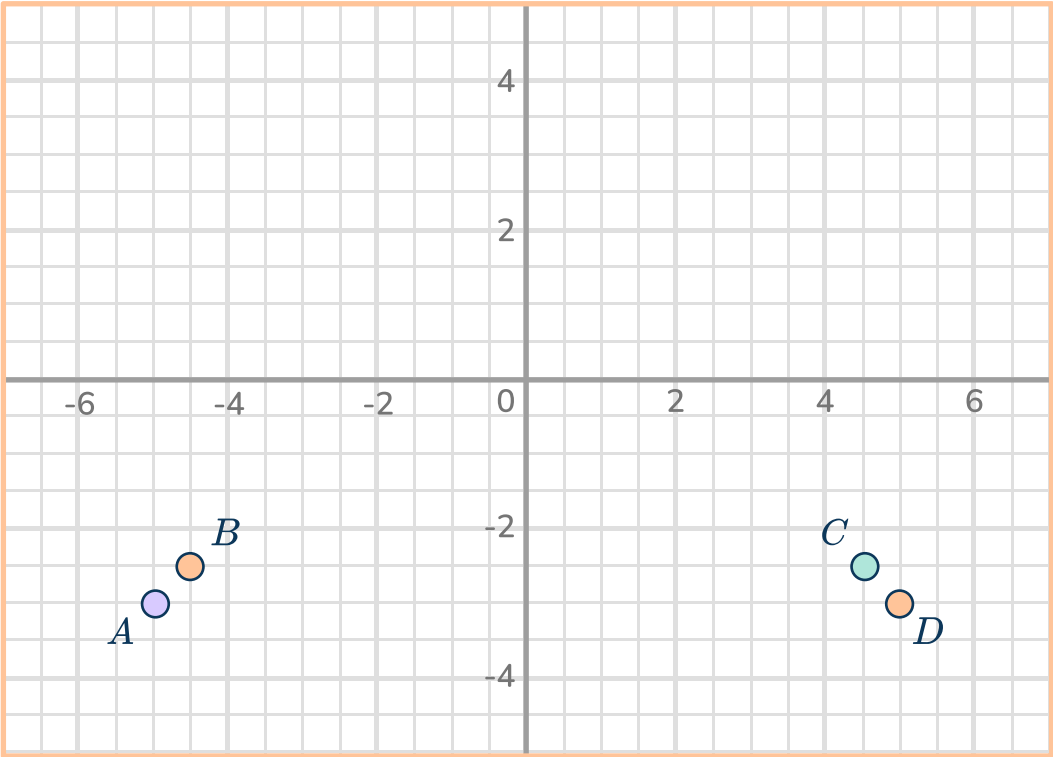
4



Which shape is formed by the net above?

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

- 5 Which point shows the coordinates (5, -3)? Place your answer in the space provided.



Answer: _____

- 6 Enter your answer in the box provided.
 $500.76 \div 5.2$

Answer

- 7 What is the value of b ? Place your answer in the box provided.
 $\frac{b}{3} = 12$

Answer

- 8 Isadora needs at least 14 volunteers to sign up for the event on Saturday. If v is the number of volunteers, write an inequality showing how many volunteers Isadora needs.

Place your answer in the box provided.

 Answer

-
- 9 Enter your answer in the box provided:
 $10,086 \div 82$

 Answer

-
- 10 Which expression shows “2 less than the quotient of b and 3”?

- A. $2 - b \div 3$
- B. $\frac{b}{3} - 2$
- C. $3b - 2$
- D. $2 - 3b$

- 11 The table below shows the types of fruit the Samaha Farm sold on Saturday afternoon.

Samaha Farm Sales	
Type of Fruit	Number of fruits sold
Peaches	28
Watermelon	12
Apples	32
Plums	36

Part A:

Write the ratio of the number of peaches sold to the total number of plums sold. _____

Part B:

Select the numbers that make the statement true.

For every _____ peaches that are sold, _____ plums sold.

- A. 7 and 9
- B. 8 and 9
- C. 9 and 7
- D. 9 and 8

- 12 Lucas says the two expressions below are equivalent.

$$5c - 7b \quad \text{and} \quad 7b - 5c$$

Is Lucas correct? Use the space below to write your explanation.

 Answer

- 13 The area of a rectangular rug is $6\frac{3}{4}ft^2$ and the length of the rug is $2\frac{1}{2}ft$. Find the length of the width of the rug. Use the space below to show your work.

 Answer

- 14 Tema has several online subscriptions to various news outlets. She subscribes to at least 5 online subscriptions, where “ ” represents the amount of subscriptions. Write an inequality representing this situation and place it on the line below.

Unit 1

Section 2 (Calculator)

3 questions

- 15 Chantal makes 8 bracelets with 3 yards of string. How many yards of string does she need for 16 bracelets? Place your answer in the box provided.

 Answer

- 16 Below are the total scores for the first 5 games Otto's baseball team played.

Total score: 5, 9, 2, 2, 8.

What is the mean of the total scores?

- A. 5.2
- B. 7
- C. 2
- D. 5.1

- 17 What is 30% of the 120? Use the space below to show your work.

 Answer

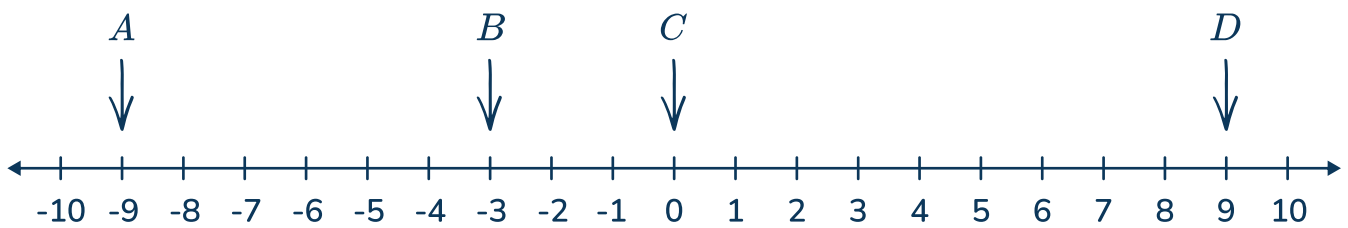
Unit 2

There is only 1 section

6 questions

Calculators are allowed.

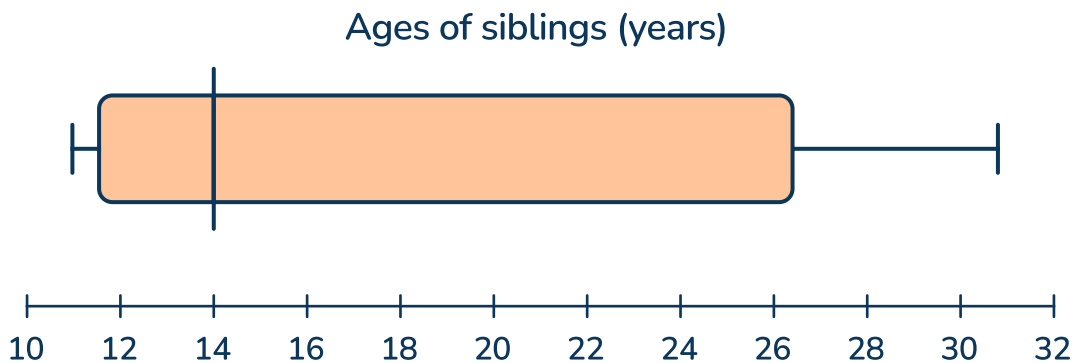
1 Where is $-(-9)$ on the number line?



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

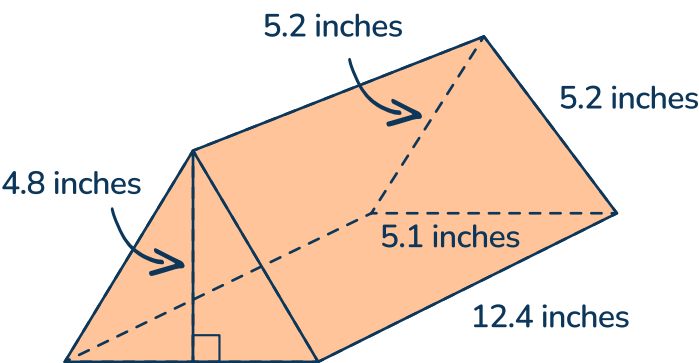
2 Use the graph below.

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



- A. The range is 22 years and the IQR is 15.
- B. The second half of the data has less variability than the first half.
- C. The median age is 21 years.
- D. At least half the siblings are 14 years old or less.

- 3 Alma is painting the outside of the box below - an isosceles triangular prism. How many square inches does she paint? Use the space below to write your answer.



Answer

- 4 Kelly drove 228 miles in 4 hours.

Part A:

How many miles per hour did Kelly drive? Place your answer in the box provided.

Answer

Part B:

Kelly will drive 513 more miles. She continues to drive at the same rate. How many hours will it take Kelly to drive 513 miles? Place your answer in the box provided.

Answer

Part C:

Kelly stopped to fill the car with 12 gallons of gas. She had driven 384 miles using the previous 12 gallons of gas. How many miles per gallon did Kelly’s car get? Place your answer in the box provided.

 Answer

5 Emery is collecting data on two water filters.

Water Filter A	
Time (minutes)	Ounces filtered
3	51
4	58
7	119

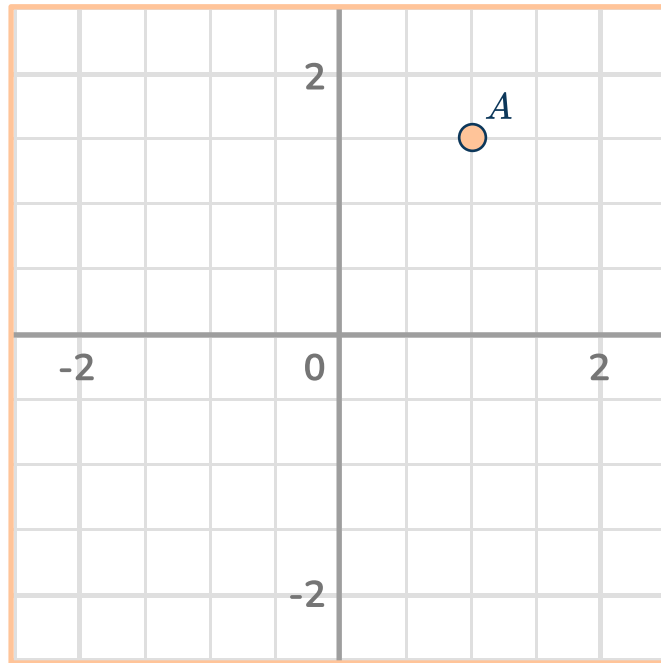
Water Filter B	
Time (minutes)	Ounces filtered
2	32
5	80
6	96

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

- A. Filter A is faster by 1 ounce per minute
- B. Filter B is faster by 1 ounce per minute
- C. Filter A is faster by 4 ounces per minute
- D. Filter B is faster by 17 ounces per minute

6 Use the graph below and the information to answer the question.

- Point B is in Quadrant 4 and 3.5 units away from Point A.
- Point C is Point B reflected over the y -axis.



Write the coordinates for Point C in the space provided.

Point C: _____

Unit 3

There is only 1 section.

6 questions

Calculators are allowed.

- 1 The student council is selling tickets to the school dance. The tickets cost \$4 each.

Part A:

Write an equation representing the total amount of money the student council makes from selling the tickets. Use c for the total cost and t for the number of tickets. Use the space below to write your answer.

 Answer


Part B:

If the student council sells 120 tickets, how much money will they make? Use the space below to write your answer.

 Answer

Part C:

If the student council makes \$552, how many tickets did they sell? Use the space below to write your answer.

 Answer

- 2 Use the box below to write your answer.

$$6(5^2 - 3 + 2) \div \frac{1}{3}$$

 Answer

-
- 3 Select all the comparisons that are true.

A. $|-5| < -5$

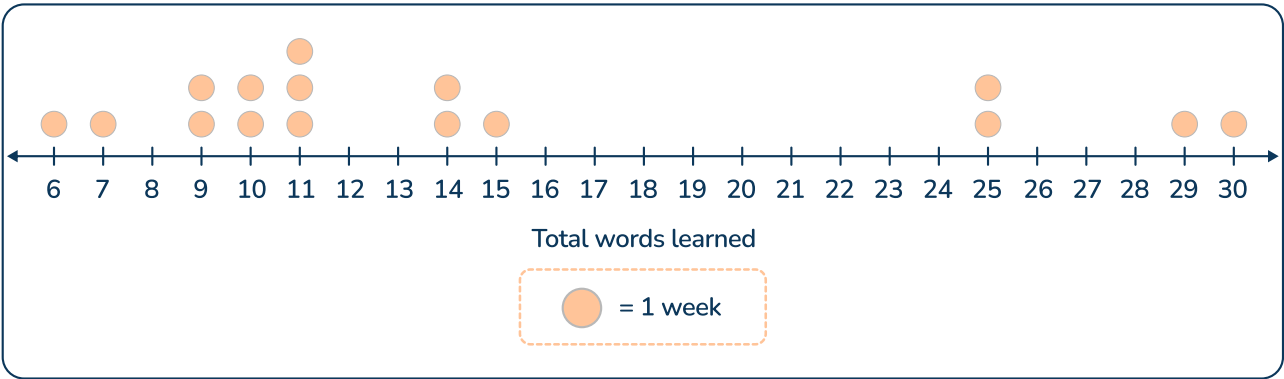
B. $|6| = 6$

C. $|-8| = |8|$

D. $|-4| > |3|$

E. $9 > |-9|$

- 4
- Lily is learning new words in French. Each week she records how many words she has learned.



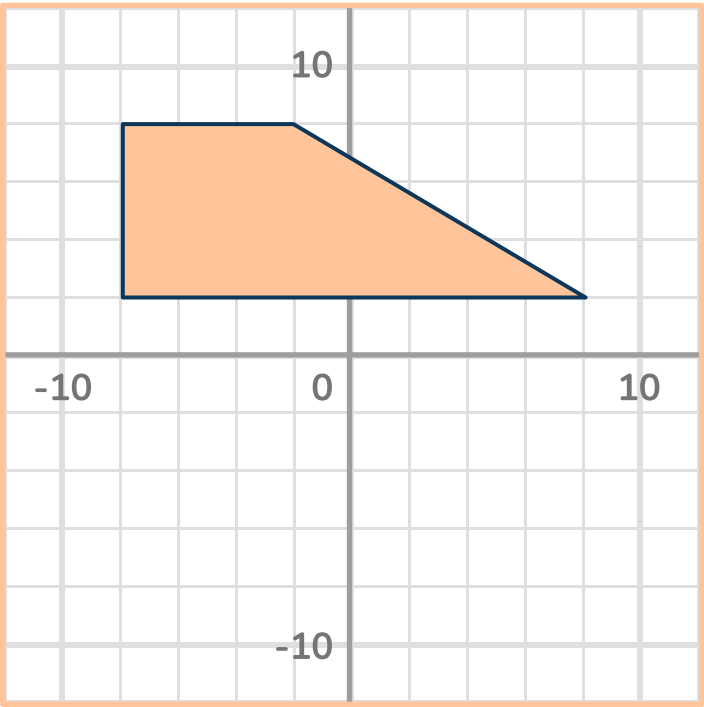
Part A:
Calculate the following measures of center and spread of the data set.

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

Part B:
When Lily started, her goal was to learn 14 words a week, on average. Is she meeting her goal? Why or why not? Use the space below to explain your answer.

Answer

5 What is the area of the shape shown on the graph?



Use the space below to write your answer.

 Answer

6 Part A:

Lucas and friends are hiking in Yellowstone National Park. Before they start their hike, they buy 6 bags of mixed nuts. Each bag contains $2\frac{1}{2}$ cups of mixed nuts. The mixed nuts are shared among Lucas and his 4 friends. How many cups of mixed nuts will each of them get? Use the space below to show your work.

 Answer**Part B:**

Lucas and his friends plan to visit Yellowstone waterfalls scenic lookout. They will rest after they hike 3 miles. They will hike the remaining $1\frac{1}{2}$ miles to the lookout. The trail they will take to return from the lookout is $\frac{3}{4}$ mile shorter than the trail they will use to go to the lookout. Each of them will bring $\frac{1}{4}$ gallon of water for each mile to and from the lookout.

- Determine the total distance, in miles, Lucas and each of his friends will hike.
- Determine the total number of gallons of water each of them will bring.

Use the space below to show your work or explain your answer.

 Answer

Answer Key

Unit 1 Section 1 (Non-calculator)			
Item number	Correct answer	Standard(s)	DOK
1	D	6.RP.A.1	DOK 1
2	-0.45	6.NS.C.6c	DOK 2
3	B	6.EE.A.3	DOK 2
4	A	6.G.A.4	DOK 1
5	D	6.NS.C.6c	DOK 1
6	96.3	6.NS.B.3	DOK 1
7	$b = 36$	6.EE.B.5	DOK 1
8	$v > 14$	6.EE.B.8	DOK 2
9	123	6.NS.B.2	DOK 1
10	B	6.EE.A.2a	DOK 2
11	Part A: $\frac{28}{36} = \frac{7}{9}$ Part B: 7 peaches, 9 plums A	6.RP.A.3.a	DOK 2
12	NO they are not the same because $5c$ has a positive coefficient and $-5c$ has a negative coefficient 5 is not equal to -5 . The same is true for the $7b$ and the $-7b$.	6.EE.A.3	DOK 3

New Jersey State Practice Math Test | Grade 6 | Answers

Unit 1 Section 1 (Non-calculator)			
Item number	Correct answer	Standard(s)	DOK
13	$6\frac{3}{4} \div 2\frac{1}{2} =$ $\frac{27}{4} \div \frac{5}{2} =$ $\frac{27}{4} \times \frac{2}{5} = \frac{27}{10} = 2\frac{7}{10}$	6.G.A.1 6.NS.A.1	DOK 2
14	$s \geq 5$	6.EE.B.8	DOK 2

Unit 1 Section 2 (Calculator)			
Item number	Correct answer	Standard(s)	DOK
15	$\frac{8}{3} = \frac{2 \times 8}{2 \times 3} = \frac{16}{6}$ For 16 bracelets she needs 6 yards of string	6.RP.3	DOK 2
16	A	6.SP.B.5	DOK 1
17	$\frac{30}{100} \times 120 = \frac{3600}{100}$ 36	6.RP.A.3c	DOK 1

Unit 2 Calculator			
Item number	Correct answer	Standard(s)	DOK
1	D	6.NS.C.6a	DOK 2
2	D	6.SP.B.4, 6.SP.B.5c, 6.SP.B.5d	DOK 2
3	216.98 in^2	6.G.A.4	DOK 2
4	Part A: $228 \div 4 = 57$ 57 mph Part B: $513 \div 57 = 9$ 9 hours Part C: $384 \div 12 = 32$ 32 miles per gallon	6.RP.A.3b 6.RP.A.2 6.EE.C.9	DOK 3
5	A	6.RP.3a	DOK 3
6	(-1, -2)	6.NS.8	DOK 3

Unit 3 Calculator			
Item number	Correct answer	Standard(s)	DOK
1	Part A: $c = 4t$ Part B: $c = 4(120)$ $c = 480$ \$480 Part C: $552 = 4t$ $138 = t$ 138 tickets	6.EE.B.7 6.EE.A.2c	DOK 3
2	132	6.EE.A.1	DOK 1
3	B, C, D	6.NS.7.c	DOK 2
4	Part A: Mean: 14.75 Median: 11 Mode: 11 Range = 24 Part B: Lily is meeting her goal, but the median does not meet the goal. The value of the mean is larger because it was affected by the few weeks on the right of the graph where there was a large amount of words learned. The median is lower than Lily's goal because the majority of the weeks she learned between 6 and 15 words.	6.SP.B.5 6.SP.B.5c	DOK 3

Unit 3 Calculator			
Item number	Correct answer	Standard(s)	DOK
5	66 units ²	6.G.A.1 6.G.A.3	DOK 3
6	<p>Part A: $2\frac{1}{2} \times 6 =$ $\frac{5}{2} \times \frac{6}{1} = \frac{30}{2} = 15$ $15 \div 5 = 3$ 3 cups each</p> <p>Part B: 3 miles + $1\frac{1}{2}$ miles = $4\frac{1}{2}$ miles $4\frac{1}{2} + 3\frac{3}{4} =$ $4\frac{2}{2} + 3\frac{3}{4} = 7\frac{5}{4} = 8\frac{1}{4}$ miles $\frac{1}{4} \times \frac{33}{4} = \frac{33}{16} = 2\frac{1}{16}$ water each</p>	6.RP.A.3	DOK 3




Breakdown of Assessment by domain				
The Number System (NS)	Ratios and Proportional Relationships (RP)	Expressions and Equations (EE)	Geometry (G)	Statistics and Probability (SP)
22%	22%	37%	13%	16%

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