

acadience®math

Concepts and Applications

Grade 6 | Benchmark 2

Teacher Key

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Scoring Direction

←
Right to Left

or

→
Left to Right

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Total: _____

1. At the zoo there were 17 lions and 24 monkeys. What is the ratio of lions to monkeys? 17 : 24
or equivalent

exact answer,
points per line 1 | 2

2. Erica has taken several math quizzes since the start of school. The following are her scores: 6, 7, 9, 7, 1.

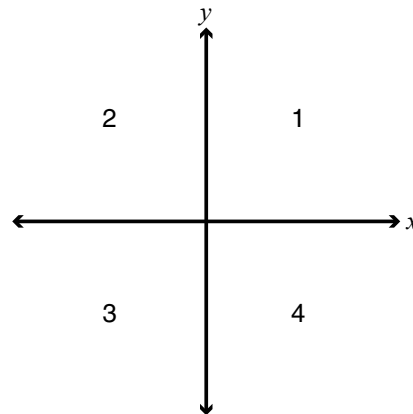
- A. What is the mean of Erica's quiz scores? 6
B. What is the median of Erica's quiz scores? 7

A: correct digits 1 | 11

B. exact answer,
points per line 1 | 5

3. Fill in the missing quadrants to complete the table:

Point	Quadrant
(3, 8)	<u>1</u>
(-7, -6)	<u>3</u>
(3, -7)	4
(-9, 8)	<u>2</u>



exact answer, 1 | 1
points per box 2 | 2
3 | 3

4. A. Write an expression for 3 subtracted from x : $x - 3$

A. exact answer,
points per line 1 | 3

- B. Write an expression for 7 added to x : $7 + x$
or equivalent

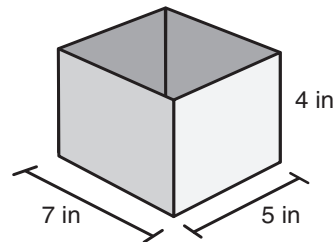
B. exact answer,
points per line 1 | 3

5. Hannah has a box and a bag of blocks. A The blocks are $\frac{1}{2}$ inch by $\frac{1}{2}$ inch by $\frac{1}{2}$ inch.

- A. What is the volume of the box? 140 in³.

- B. How many blocks will fit inside Hannah's box?

1,120 blocks.



A. correct digits 1 | 3
2 | 6
3 | 10

B. correct digits 1 | 7
2 | 13
3 | 19
4 | 26

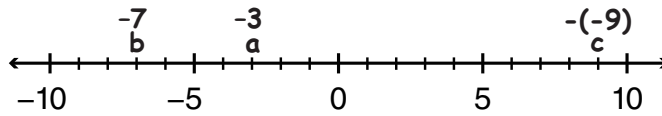
6. It takes Mia 2 weeks to make 4 scarves. At this rate, how long will it take her to make 6 scarves? 3 week(s).

correct digits 1 | 6

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7. Label the following numbers on the number line below:

- a. -3
 b. -7
 c. $-(-9)$



exact answer, 1 | 1
 points per segment 2 | 2
 (each labeled number) 3 | 3

8. Write "True" if the substitution makes the inequality true or write "False" if the substitution makes the inequality false:

Inequality	$x =$	Write True or False
$44x - 5 < 100$	3	False
$26x + 7 < 100$	4	False

exact answer, 1 | 3
 points per box 2 | 6

9. Complete the ratio table:

3	9
6	18
9	27
12	36
15	45

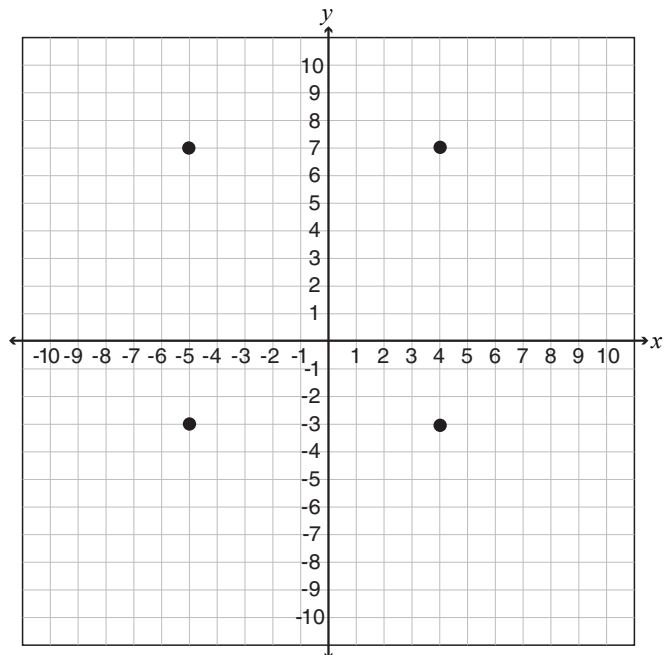
exact answer, 1 | 1
 points per box 2 | 2
 3 | 3
 4 | 4

10. Dean is plotting the points of ships on a graph.

The ships are located at $(4, 7)$, $(4, -3)$, $(-5, -3)$.

A. If the vertices form a rectangle, find the location of the last vertex: (-5, 7)

B. Plot all the vertices on the graph:



A. exact answer, 1 | 1
 points per line 2 | 2

B. points per segment 1 | 1
 2 | 2
 3 | 3
 (correct points plotted) 4 | 4

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11. Martin is paid for delivering newspapers on the weekend. He earns \$25 per street.

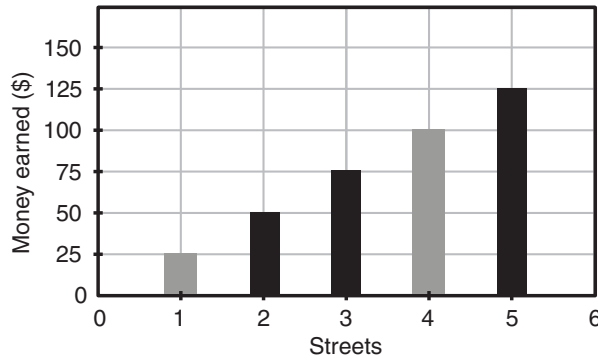
A. Fill in the table below to determine how much money Martin earned.

Streets	Money Earned
1	\$25
2	\$50
3	\$75
4	\$100
5	\$125

B. Write an equation that illustrates the relationship between the number of streets (s) and the money earned (m):

$m = 25s$

C. Make a bar graph for the amount of money earned:



A. exact answer, $\frac{1}{2}$ | **1**
 points per box 3 | **2**
3

B. exact answer, points per line 1 | **4**

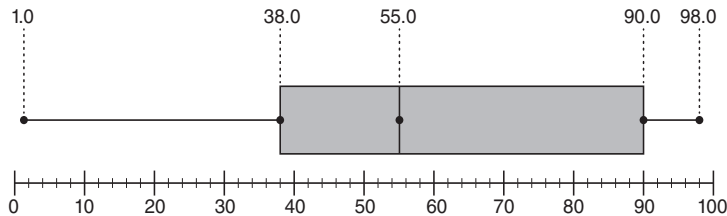
C. exact answer, points per segment $\frac{1}{2}$ | **1**
 (each bar graphed) 2 | **2**
 3 | **3**

12. You went to the bookstore and bought 5 books for \$20. If all the books cost the same, what is the cost of each book?

\$ **4** per book.

correct digits 1 | **4**

13. Below are the number of minutes students in a class spent on homework:



What is the range of the minutes spent on homework? **97**

What is the median number of minutes spent on homework? **55**

What is the maximum number of minutes spent on homework? **98**

exact answer, $\frac{1}{2}$ | **2**
 points per line 2 | **4**
 3 | **6**

14. Diver A dove to a sea level depth of -20 feet. Diver B dove to -55 feet.

Which diver dove deeper? **Diver B**

Diver A was how many feet under the water? **20** feet

exact answer, $\frac{1}{2}$ | **1**
 points per line 2 | **2**

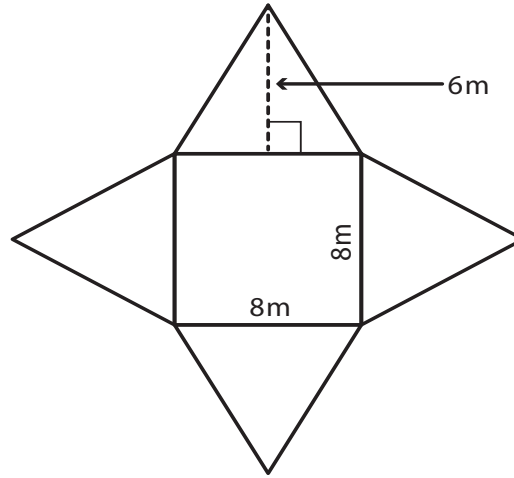
15. $3^3 =$ **27**

correct digits 1 | **3**
 2 | **7**

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16. Tanya wanted to figure out the surface area of a pyramid. What is the surface area of the pyramid?

160 m².



correct digits

1	7
2	15
3	23

17. Joe can run 6 miles in 54 minutes. If he runs at a constant speed, how long will it take him to run 8 miles?

72 minutes.

correct digits

1	4
2	8

18. What is the greatest common factor of 30 and 24? 6

exact answer,
points per line

1	8
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19. Beth scores 8 more than 7 times the soccer goals that Jack scored.

Let J = the number of goals that Jack scored.

Write an equation using x that describes how many goals Beth scored. $X = 7J + 8$
or equivalent

exact answer,
points per line

1	5
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20. At Sam's house it was 6°F. At Mary's house it was -8°F. Write an inequality to show the relationship between these temperatures:

$-8^{\circ} < 6^{\circ}$

exact answer,
points per line

1	4
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