

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

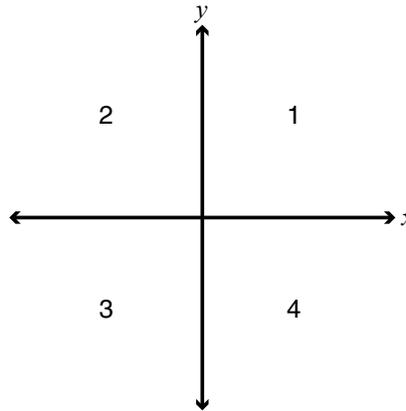
B. What is the median of Erica's quiz scores? 7

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

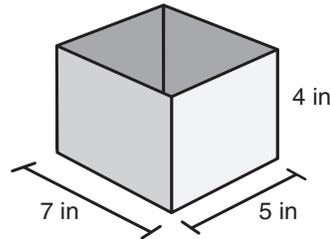
B. exact answer,
points per line 1 | 3

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

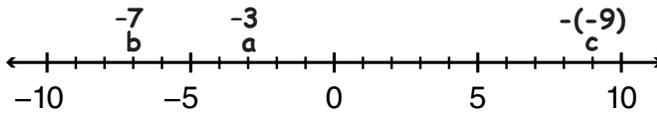
6. It takes Mia 2 weeks to make 4 scarves. At this rate, how long will it take her to make 6 scarves? 3 week(s).

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 |

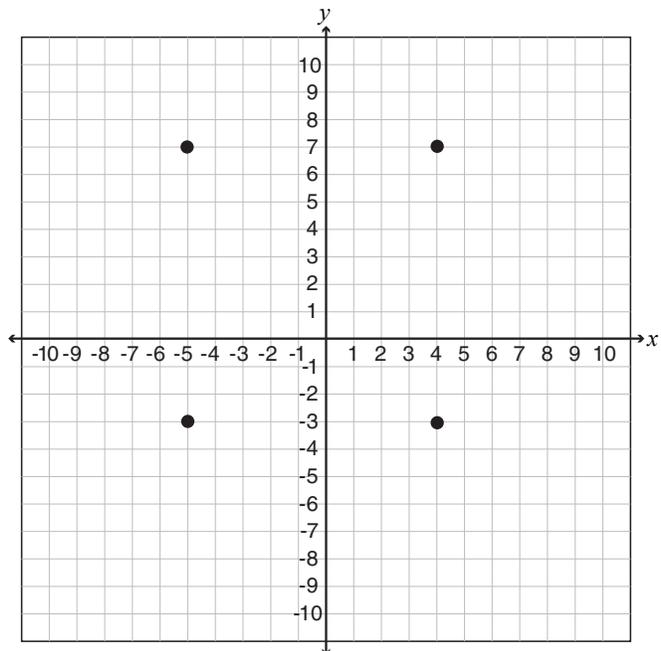
exact answer, 1 | 1
 points per box 2 | 2
 3 | 3
 4 | 4

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.

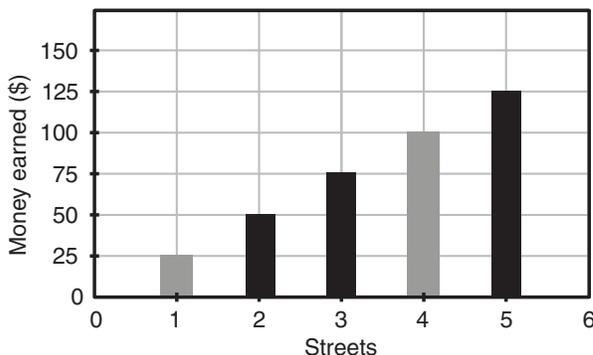
A. Fill in the table below to determine how much money Martin earned.

| 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, $\frac{1}{2} \mid \frac{1}{3}$
points per box 3 | 3

B. exact answer, points per line 1 | 4

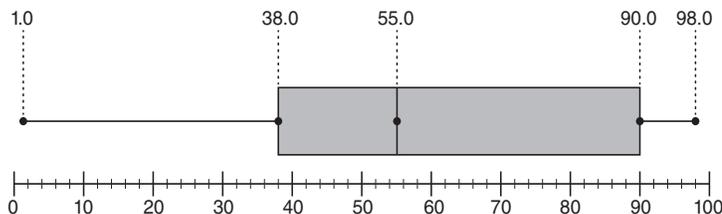
C. exact answer, points per segment $\frac{1}{2} \mid \frac{1}{3}$
(each bar graphed) 3 | 3

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, $\frac{1}{2} \mid \frac{2}{4}$
points per line 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, points per line $\frac{1}{2} \mid \frac{1}{2}$

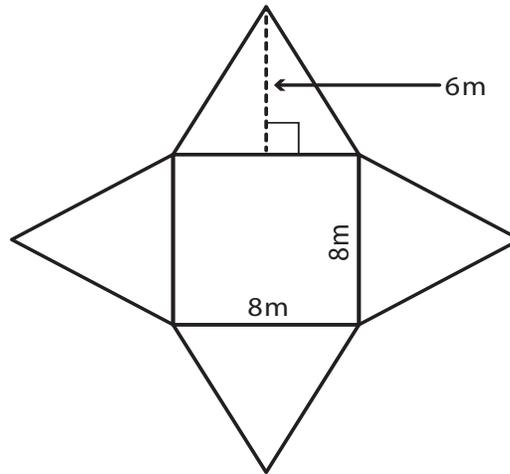
15. $3^3 =$ 27

correct digits $\frac{1}{2} \mid \frac{3}{7}$

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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

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

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