

TEST NAME: **RP1,2 Review**  
TEST ID: **373542**  
GRADE: **07**  
SUBJECT: **Mathematics**  
TEST CATEGORY: **School Assessment**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. Ally's hair grew from  $10\frac{3}{4}$  inches to  $13\frac{1}{4}$  inches over 5 months. At what rate did Ally's hair grow per month?
  - A.  $\frac{1}{2}$  inch
  - B.  $\frac{7}{10}$  inch
  - C.  $2\frac{1}{2}$  inches
  
2. A certain laundry detergent recommends  $\frac{1}{4}$  cup of detergent for a  $\frac{1}{2}$  load of clothes. How much detergent is recommended for 4 loads of clothes?
  - A. 1 cup
  - B. 2 cups
  - C. 4 cups
  - D. 8 cups
  
3. In which situation is the amount of money earned determined by a proportional relationship?
  - A. An editor charged her clients \$1.25 per page for editing.
  - B. A tour guide at the museum was paid a salary of \$1,500 for the entire year.
  - C. A dog walker charged her clients a \$10 flat-rate monthly fee plus \$5 per walk.
  - D. A songwriter was paid a different amount for each song she wrote depending on its popularity.

4. The table shows the time it takes a student to complete a certain number of jumping jacks.

<b>Number of Jumping Jacks (<math>j</math>)</b>	<b>Time in Seconds (<math>t</math>)</b>
4	5
7	8.75
10	12.5
15	18.75
18	22.5

Which equation represents the amount of time it takes the student to complete  $j$  number of jumping jacks?

- A.  $t = 5j$
- B.  $t = 4j$
- C.  $t = 1.25j$
- D.  $t = 0.80j$
5. Donna recorded the number of hours she tutored each week for 4 weeks and what she earned for the week in the table below.

**Weekly Earnings**

<b>Number of Hours Worked</b>	<b>Earnings</b>
2	\$50
4	\$100
5	\$125
8	\$200

If  $x$  represents the number of hours Donna worked and  $y$  represents her earnings, which equation represents this relationship?

- A.  $y = 50 + x$
- B.  $y = 25 + x$
- C.  $y = 50x$
- D.  $y = 25x$

6. The chart below shows the growth of four plants for 4 weeks.

	<b>Plant 1</b>	<b>Plant 2</b>	<b>Plant 3</b>	<b>Plant 4</b>
Week 1	1.8	2.0	4.5	4
Week 2	2.2	2.6	4.9	8
Week 3	2.6	2.8	5.2	15
Week 4	3.0	3.0	5.5	30

Which plant shows a constant rate of growth?

- A. Plant 1
  - B. Plant 2
  - C. Plant 3
  - D. Plant 4
7. The table shows the price of different numbers of downloaded songs.

<b>Number of Songs (<math>n</math>)</b>	<b>Cost (<math>c</math>)</b>
5	\$7.50
7	\$10.50
13	\$19.50

Which equation shows the cost,  $c$ , of  $n$  number of downloaded songs?

- A.  $c = 0.67n$
- B.  $c = 1.50n$
- C.  $c = 2.00n$
- D.  $c = 3.00n$

8. The table of values below represents a proportional relationship.

$x$	$y$
2	7
4	14
—	35

What is the value of the missing number?

- A. 8
  - B. 10
  - C. 14
  - D. 122.5
9. Harry ran 5 miles. He started at 10:30 and finished at 11:20. What was Harry's average speed in miles per hour?
- A. 3 miles per hour
  - B. 4 miles per hour
  - C. 5 miles per hour
  - D. 6 miles per hour

10. The graph below shows how the number of pages Jeff reads is related to the number of hours he spends reading.



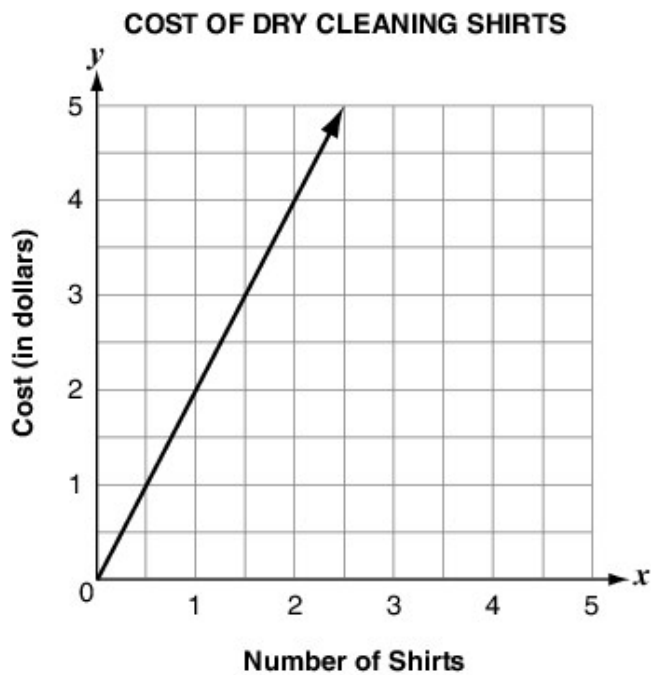
If Jeff continues to read at the same rate as shown in the graph, how many hours would it take him to read 90 pages?

- A. 20
  - B. 6
  - C. 4.5
  - D. 1.5
11. Which equation represents the proportional relationship in the table?

<b>x</b>	<b>y</b>
-2	-7
-4	-14
-6	-21
-8	-28

- A.  $y = 3.5x$
- B.  $y = -3.5x$
- C.  $y = x + 5$
- D.  $y = x - 5$

12. A dry cleaning service's costs for cleaning shirts are shown in the graph.



What is the meaning of the point  $(1, 2)$  in terms of the context?

- A. The dry cleaning service charges \$1 per shirt.
- B. The dry cleaning service charges \$2 per shirt.
- C. The dry cleaning service charges \$1 for 2 shirts.
- D. The dry cleaning service charges \$2 for 2 shirts.

13. A local car wash is open 8 hours each day.

- It uses  $\frac{1}{3}$  of a container of wax for each car.
- The car wash waxes an average of  $8\frac{1}{2}$  cars per hour.

How many containers of wax does the car wash use in one day?

A.  $25\frac{1}{2}$

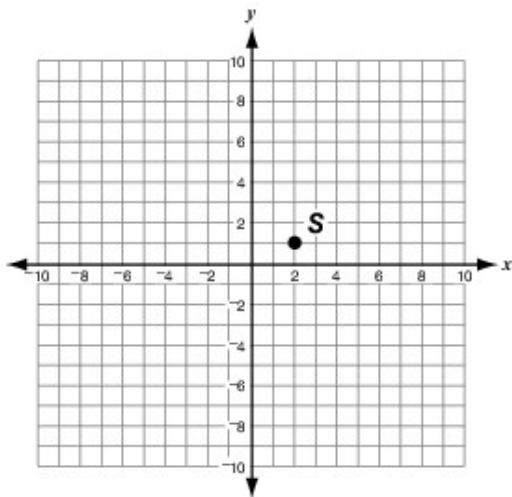
B.  $22\frac{2}{3}$

C.  $14\frac{2}{3}$

D.  $8\frac{1}{6}$



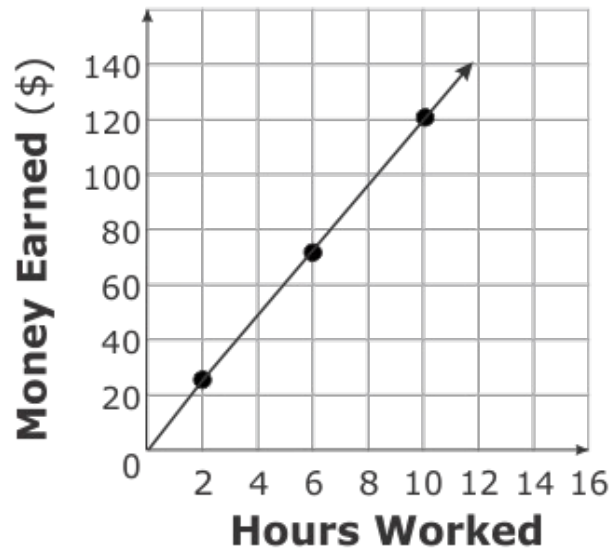
14. Look at point  $S$  in the coordinate grid below.



If a line contains both point  $S$  and the origin, which point would the line also contain?

- A.  $(12, 8)$
- B.  $(14, 7)$
- C.  $(15, 9)$
- D.  $(20, 12)$

15. The graph below shows the number of hours Rebecca worked and the amount of money she earned.



How much money does Rebecca earn per hour?

- A. \$8
  - B. \$12
  - C. \$20
16. Which equation could be used to represent the data in the table?

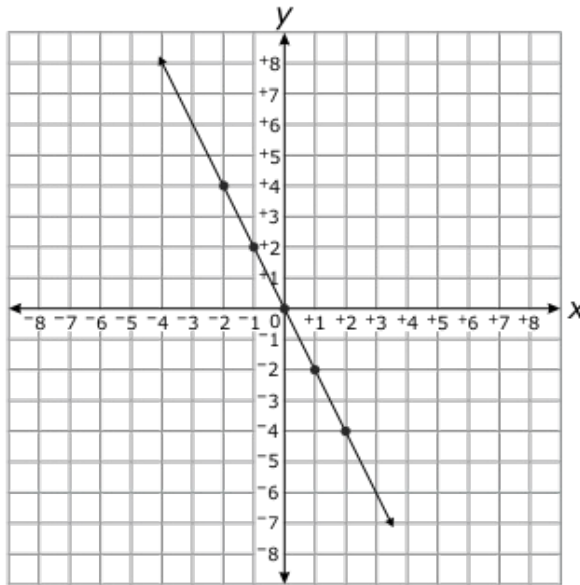
<b>x</b>	<b>y</b>
2	-6.5
5	-16.25
9	-29.25
11	-35.75

- A.  $y = x + ^{-}9.75$
- B.  $y = x + ^{-}4.5$
- C.  $y = ^{-}3.25x$
- D.  $y = ^{-}3.5x$

17. Two dozen flowers cost \$18.96, and four dozen flowers cost \$37.92.  
What is the cost for one flower?

- A. \$18.96
- B. \$9.48
- C. \$0.95
- D. \$0.79

18. What is the constant of proportionality for the line on the graph below?



- A. 2
- B.  $\frac{1}{2}$
- C.  $-\frac{1}{2}$
- D. -2

19. Julie works at a movie theater. She worked 28 hours and earned \$261.80. Which equation represents Julie's earnings,  $y$ , for  $x$  hours of work?

- A.  $y = 9.35x$
- B.  $y = 10.82x$
- C.  $y = 26x$
- D.  $y = 28x$

20. Which table below shows a proportional relationship between  $x$  and  $y$ ?

A.

$x$	$y$
1.5	3
2.5	5
3.5	10.5
4.5	22.5

B.

$x$	$y$
1.5	3.5
2.5	4.5
3.5	5.5
4.5	6.5

C.

$x$	$y$
1.5	3
2.5	5
3.5	7
4.5	9

D.

$x$	$y$
1.5	3
2.5	6
3.5	12
4.5	24

21. Janice is traveling at a constant rate. She traveled 243 miles on 9 gallons of gas and 324 miles on 12 gallons of gas. How many miles can Janice travel on one gallon of gas?
- A. 24 miles
  - B. 27 miles
  - C. 30 miles

22. Mario created a table to help him graph the total distance,  $d$ , that he will walk in  $t$  days.

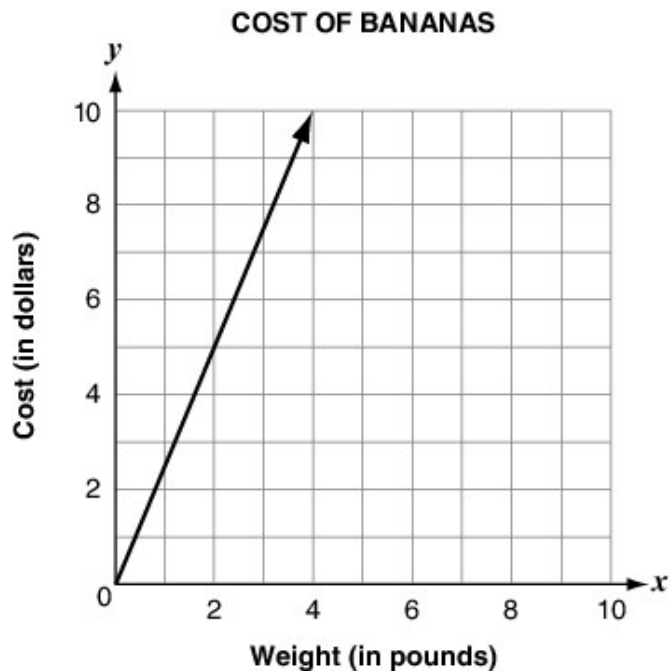
### Mario's Walking Distance

Total Time (in days)	Total Distance (in miles)
1	1.5
2	3
4	6
5	7.5
$t$	$d$

Which explanation **best** describes what the ordered pair (1, 1.5) in the table means?

- A. It is the distance in miles Mario has walked in 1 day.
- B. It is the time in hours Mario spends walking in 1 day.
- C. It is the time in hours Mario spends walking 1.5 miles.
- D. It is the distance in miles Mario has walked in 1.5 days.

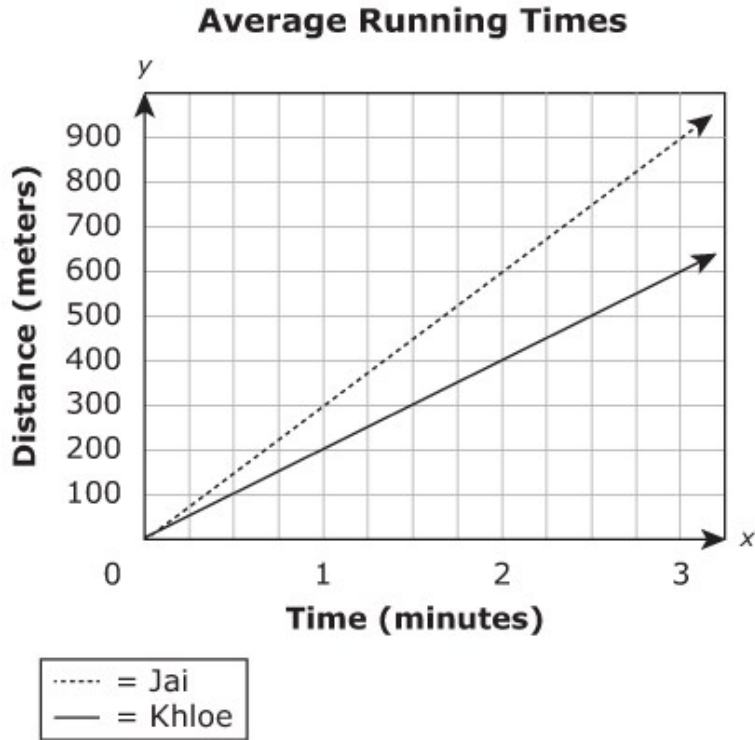
23. The graph shows the cost of bananas at a supermarket based on the weight of the bananas in pounds.



What is the cost of one pound of bananas?

- A. \$0.40
- B. \$0.50
- C. \$2.00
- D. \$2.50

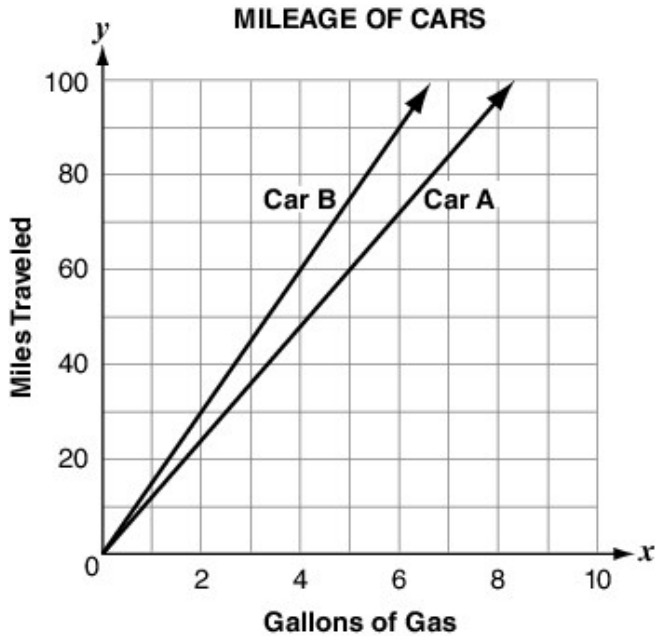
24. Jai and Khloe's coach recorded their average running times in a graph.



Based on the information in the graph, which statement is true?

- A. Both girls ran at the same speed because they started at (0, 0).
- B. Jai ran at a faster speed because her unit rate was 300 meters per minute.
- C. Khloe ran at a faster speed because her unit rate was 400 meters per minute.
- D. Since there are two separate lines, it is not possible to calculate a unit rate and compare the two speeds.

25. The graph below shows that the number of miles traveled by two cars is proportional to the gallons of gas used.

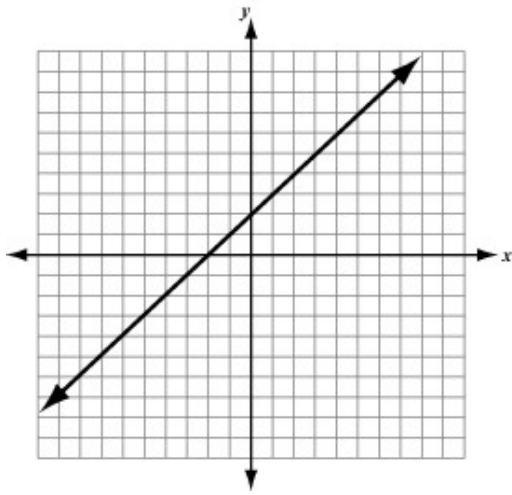


Which statement is **true** about the graph?

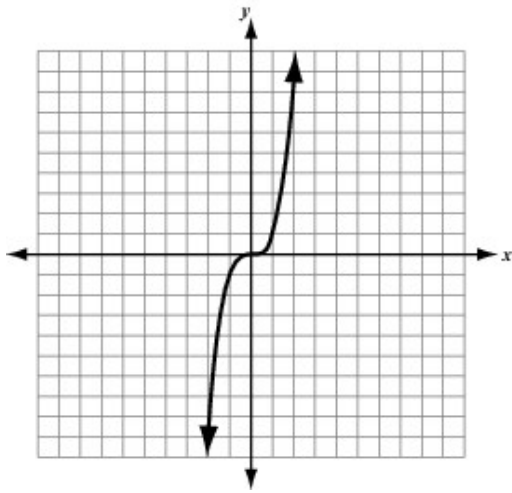
- A. The unit rate of car A is about 10% greater than car B, so car A gets better mileage.
  - B. The unit rate of car A is about 10% greater than car B, so car B gets better mileage.
  - C. The unit rate of car B is about 25% greater than car A, so car A gets better mileage.
  - D. The unit rate of car B is about 25% greater than car A, so car B gets better mileage.
26. Which of these graphs represents a proportional relationship?



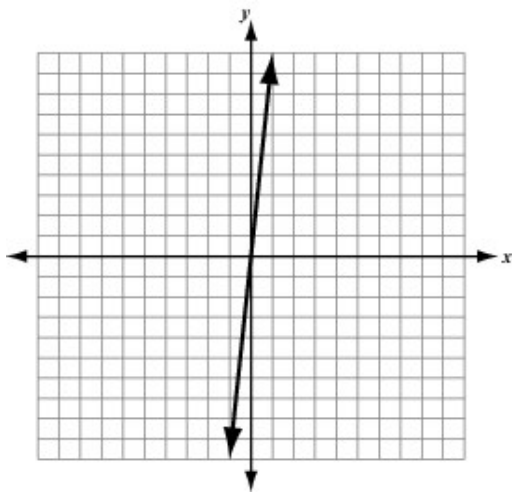
A.



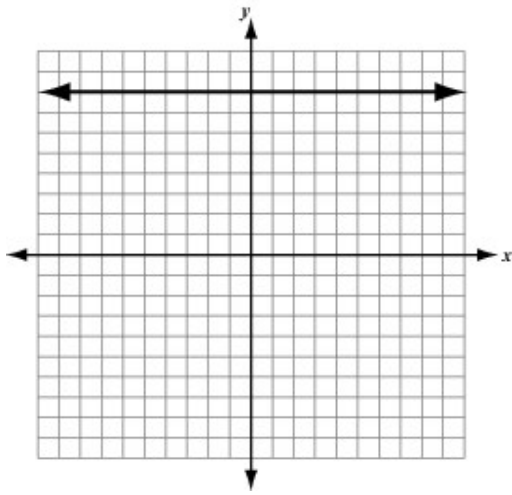
B.



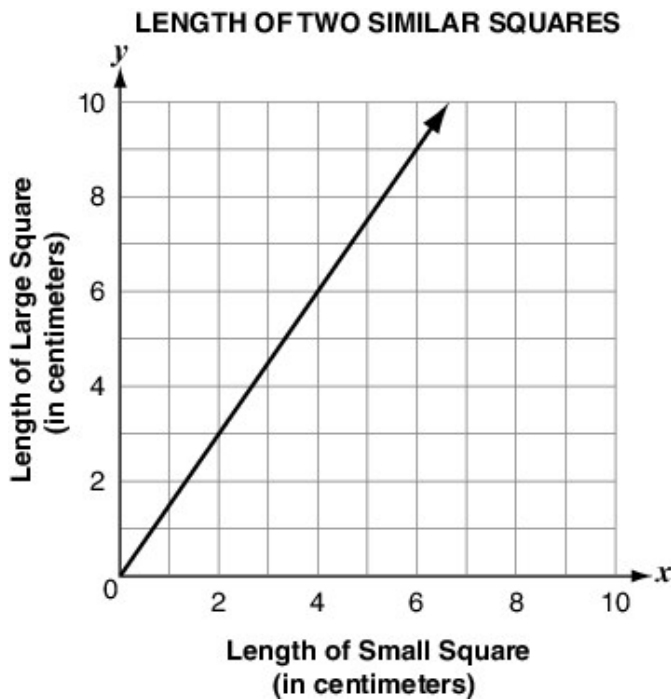
C.



D.



27. Two squares are similar. The side length of the smaller square is proportional to the side length of the larger square. This relationship is graphed below.



What is the side length of the larger square if the side length of the smaller square is 1 cm?

- A. 0.7 cm
- B. 1.3 cm
- C. 1.5 cm
- D. 1.7 cm

