

CRCT Quiz #8

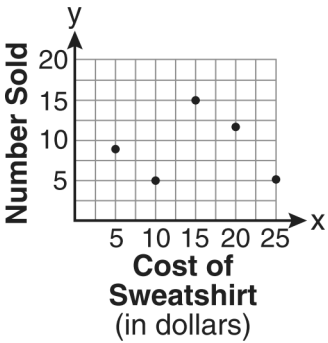
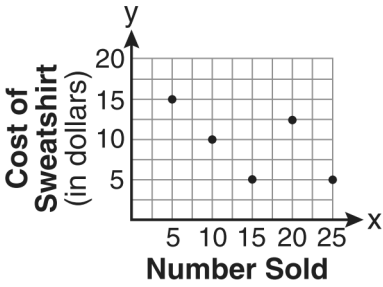
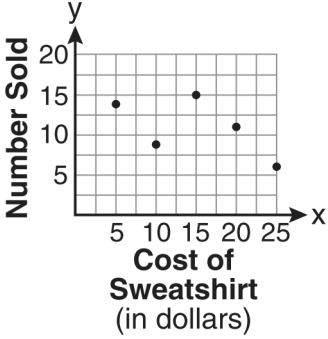
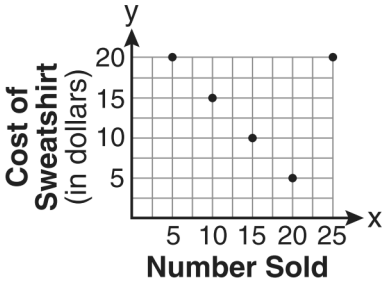
Name: \_\_\_\_\_

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

1. The school store did a study comparing the cost of a sweatshirt with the number of sweatshirts sold. The price was changed several times and the numbers of sweatshirts sold were recorded. The data are shown in the table below.

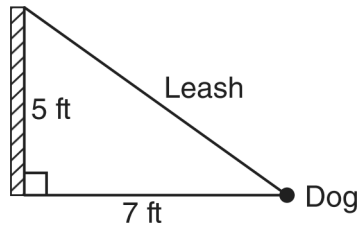
<b>Cost of Sweatshirt</b>	\$10	\$25	\$15	\$20	\$5
<b>Number Sold</b>	9	6	15	11	14

Which scatter plot best represents the data?

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

2. What is the solution of  $3(2m - 1) \leq 4m + 7$ ?
- A.  $m \leq 5$    B.  $m \geq 5$    C.  $m \leq 4$    D.  $m \geq 4$

3. The end of a dog's leash is attached to the top of a 5-foot-tall fence post, as shown in the diagram below. The dog is 7 feet away from the base of the fence post.

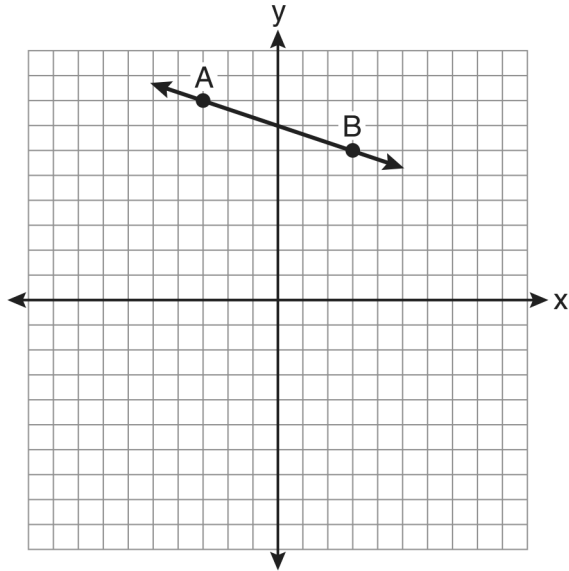


How long is the leash, to the *nearest tenth of a foot*?

- A. 4.9   B. 8.6   C. 9.0   D. 12.0

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4. What is the slope of the line passing through the points  $A$  and  $B$ , as shown on the graph below?



- A.  $-3$     B.  $-\frac{1}{3}$     C.  $3$     D.  $\frac{1}{3}$
5. The quotient of  $(9.2 \times 10^6)$  and  $(2.3 \times 10^2)$  expressed in scientific notation is
- A. 4,000                      B. 40,000  
 C.  $4 \times 10^3$                 D.  $4 \times 10^4$
6. The width of a rectangle is 3 less than twice the length,  $x$ . If the area of the rectangle is 43 square feet, which equation can be used to find the length, in feet?
- A.  $2x(x - 3) = 43$         B.  $x(3 - 2x) = 43$   
 C.  $2x + 2(2x - 3) = 43$     D.  $x(2x - 3) = 43$

7. Which equation represents a line parallel to the  $y$ -axis?
- A.  $x = y$                       B.  $x = 4$   
 C.  $y = 4$                       D.  $y = x + 4$
8. Which point lies on the line whose equation is  $2x - 3y = 9$ ?
- A.  $(-1, -3)$                 B.  $(-1, 3)$   
 C.  $(0, 3)$                       D.  $(0, -3)$
9. What is the value of the  $y$ -coordinate of the solution to the system of equations  $2x + y = 8$  and  $x - 3y = -3$ ?
- A.  $-2$     B.  $2$     C.  $3$     D.  $-3$
10. The probability that it will snow on Sunday is  $\frac{3}{5}$ . The probability that it will snow on both Sunday and Monday is  $\frac{3}{10}$ . What is the probability that it will snow on Monday, if it snowed on Sunday?
- A.  $\frac{9}{50}$     B.  $2$     C.  $\frac{1}{2}$     D.  $\frac{9}{10}$
11. What is an equation of the line that passes through the points  $(1, 3)$  and  $(8, 5)$ ?
- A.  $y + 1 = \frac{2}{7}(x + 3)$         B.  $y - 5 = \frac{2}{7}(x - 8)$   
 C.  $y - 1 = \frac{2}{7}(x + 3)$         D.  $y + 5 = \frac{2}{7}(x - 8)$

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12. An example of an algebraic expression is

A.  $x + 2$

B.  $y = x + 2$

C.  $y < x + 2$

D.  $y = x^2 + 2x$

13. Express in simplest form:  $\frac{45a^4b^3 - 90a^3b}{15a2b}$

14. Joseph typed a 1,200-word essay in 25 minutes. At this rate, determine how many words he can type in 45 minutes.

15. Express  $-3\sqrt{48}$  in simplest radical form.

- |         |                |
|---------|----------------|
| 1.      |                |
| Answer: | C              |
| 2.      |                |
| Answer: | A              |
| 3.      |                |
| Answer: | B              |
| 4.      |                |
| Answer: | B              |
| 5.      |                |
| Answer: | D              |
| 6.      |                |
| Answer: | D              |
| 7.      |                |
| Answer: | B              |
| 8.      |                |
| Answer: | D              |
| 9.      |                |
| Answer: | B              |
| 10.     |                |
| Answer: | C              |
| 11.     |                |
| Answer: | B              |
| 12.     |                |
| Answer: | A              |
| 13.     |                |
| Answer: | $3a^2b^2 - 6a$ |
| 14.     |                |
| Answer: | 2160           |
| 15.     |                |
| Answer: | $-12\sqrt{3}$  |