

CRCT Quiz #12

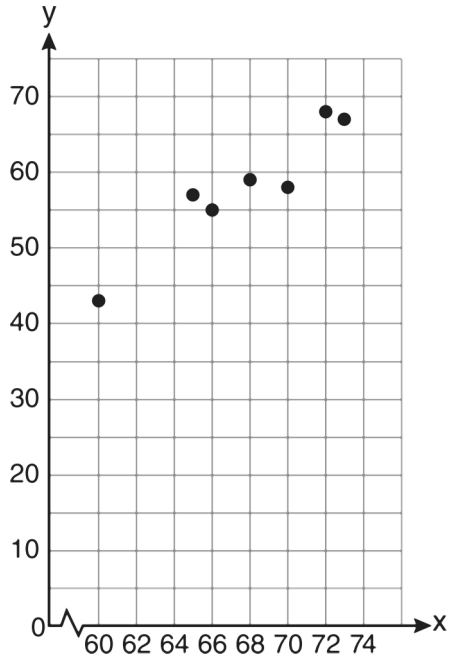
Name: \_\_\_\_\_

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

1. Marcy determined that her father's age is four less than three times her age. If  $x$  represents Marcy's age, which expression represents her father's age?

- A.  $3x - 4$                       B.  $3(x - 4)$   
 C.  $4x - 3$                       D.  $4 - 3x$

2. A set of data is graphed on the scatter plot below.

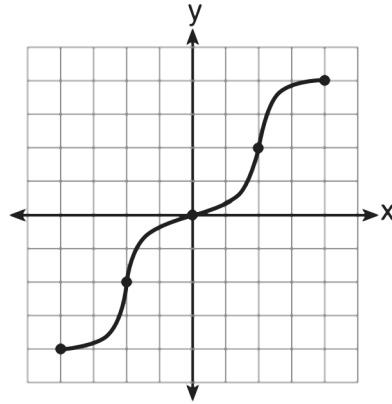


This scatter plot shows

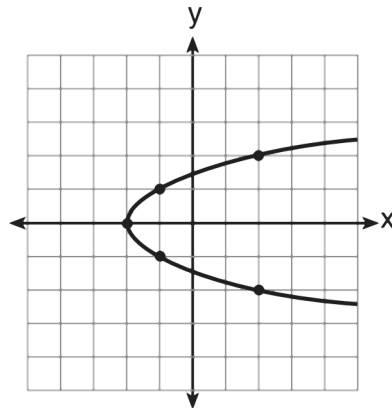
- A. no correlation  
 B. positive correlation  
 C. negative correlation  
 D. undefined correlation

3. Which graph represents a function?

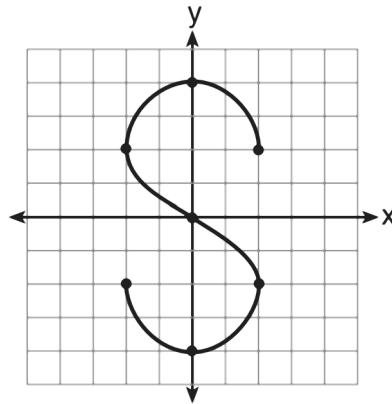
A.



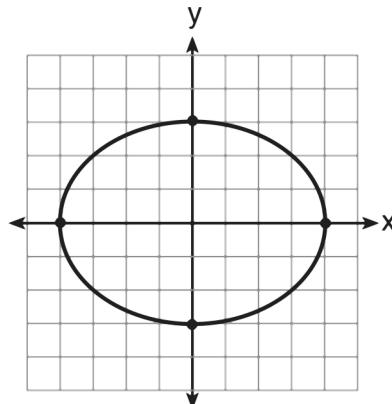
B.



C.



D.



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4. If five times a number is less than 55, what is the greatest possible integer value of the number?

- A. 12    B. 11    C. 10    D. 9

5. The line represented by the equation  $2y - 3x = 4$  has a slope of

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

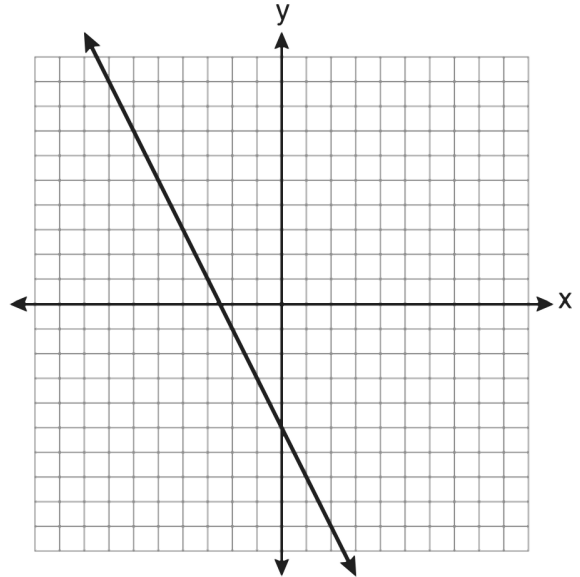
6. If  $k = am + 3mx$ , the value of  $m$  in terms of  $a$ ,  $k$ , and  $x$  can be expressed as

- A.  $\frac{k}{a + 3x}$     B.  $\frac{k - 3mx}{a}$   
 C.  $\frac{k - am}{3x}$     D.  $\frac{k - a}{3x}$

7. What is one-third of  $3^6$ ?

- A.  $1^2$     B.  $3^2$     C.  $3^5$     D.  $9^6$

8. Which equation is represented by the graph below?



- A.  $2y + x = 10$     B.  $y - 2x = -5$   
 C.  $-2y = 10x - 4$     D.  $2y = -4x - 10$

9. The length of one side of a square is 13 feet. What is the length, to the nearest foot, of a diagonal of the square?

- A. 13    B. 18    C. 19    D. 26

10. When  $8x^2 + 3x + 2$  is subtracted from  $9x^2 - 3x - 4$ , the result is

- A.  $x^2 - 2$     B.  $17x^2 - 2$   
 C.  $-x^2 + 6x + 6$     D.  $x^2 - 6x - 6$

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11. Solve the following system of equations algebraically for  $y$ :

$$2x + 2y = 9$$

$$2x - y = 3$$

12. Express  $\frac{3\sqrt{75} + \sqrt{27}}{3}$  in simplest radical form.

13. Solve algebraically for  $x$ :  $3(x+1) - 5x = 12 - (6x - 7)$

1.  
Answer:        A
2.  
Answer:        B
3.  
Answer:        A
4.  
Answer:        C
5.  
Answer:        D
6.  
Answer:        A
7.  
Answer:        C
8.  
Answer:        D
9.  
Answer:        B
10.  
Answer:        D
11.  
Answer:        2
12.  
Answer:         $6\sqrt{3}$
13.  
Answer:        4