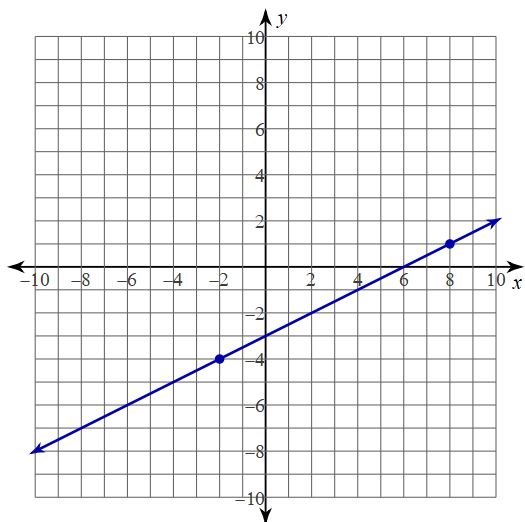


1. What is the negative solution to this equation  $4x^2 + 6x - 28 = 0$  ?

Answer : \_\_\_\_\_

2. The graph of a linear function is shown on the grid:



Which equation is best represented by this graph ?

- A.  $y - 1 = \frac{1}{2}(x - 4)$   
 B.  $y - 1 = \frac{1}{2}(x + 4)$   
 C.  $y + 1 = \frac{1}{2}(x - 4)$   
 D.  $y + 1 = \frac{1}{2}(x + 4)$

3. What is the solution to:  
 $5(16 - 2x) = 10(x + 40)$

Answer : \_\_\_\_\_

4. What is the value of  $y$  in the solution to this system of equations?

$$\begin{aligned} y &= 3x + 13 \\ x - 3y &= -15 \end{aligned}$$

- F. 4                  H. 3  
 G. -3                J. -4

5. Which function in vertex form contains (4,-5) and (7,13)?

- A.  $y = 2(x - 7)^2 - 13$   
 B.  $y = 2(x - 4)^2 - 5$   
 C.  $y = 2(x + 4)^2 + 5$   
 D.  $y = 2(x - 7)^2 + 13$

6. What is the slope of the graph  $2x + 3y = 6$  ?

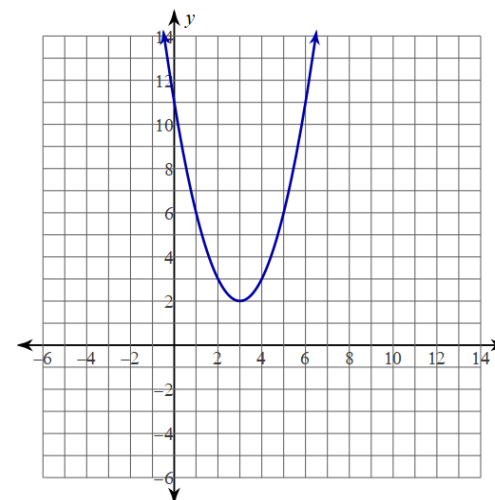
- F. 2      G.  $-\frac{2}{3}$       H. -2      J.  $\frac{3}{2}$

7. Which expression is equivalent to

$$2(n + 3) - (4n^2 + 2n) - (3n + 2) ?$$

- A.  $-4n^2 - 3x + 4$   
 B.  $4n^2 + 7n + 5$   
 C.  $-4n^2 + n + 5$   
 D.  $4n^2 - 3n + 7$

8. The graph of a quadratic function is shown on the grid:



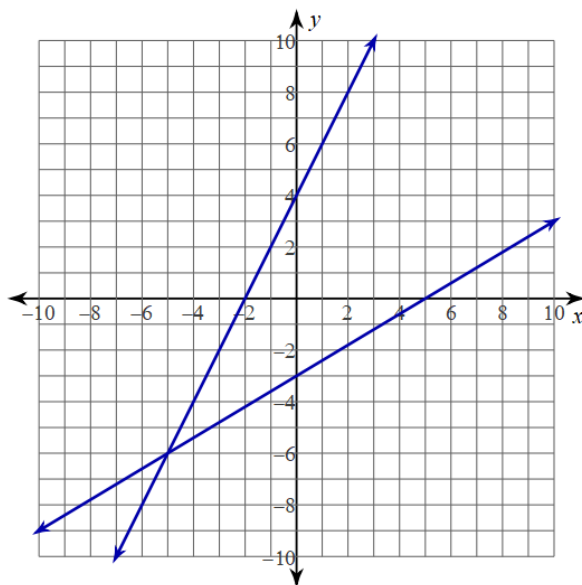
What is true about the graph above?

- F. It has axis of symmetry at  $y = 2$   
 G. It has 2 zeros  
 H. It has a vertical asymptote  
 J. It has a vertex at (3, 2)

9. Which value of  $x$  makes the equation  $1.25(4x - 5) = 10$  true?

- A.  $-1.25$     B.  $5$     C.  $1.25$     D.  $3.25$

10. A system of equations is graphed on the grid



Which system of equations does the graph represent?

- F.  $y = 3x - 5$                       H.  $y = 2x + 4$   
      $2x - 4y = 15$                        $3x - 5y = 15$
- G.  $y = -3x + 5$                       J.  $y = 4x + 2$   
      $-2x + 4y = 15$                        $-3x + 5y = 15$

11. Which is a factor of the function:  
 $h(x) = x^2 + 14x - 32$  ?

- A.  $x - 2$   
 B.  $x - 4$   
 C.  $x + 8$   
 D.  $x + 4$

12. Which value of  $x$  is a solution to this equation  $5x^2 + 13x - 60 = 0$  ?

- A.  $x = 2.4$                       C.  $x = -6.4$   
 B.  $x = 5$                         D.  $x = 3.4$

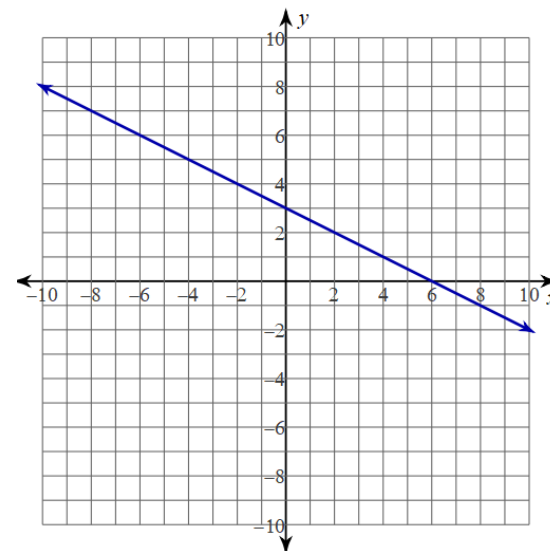
13. Which expression is equivalent to  $(4xy^5)^2$  ?

- F.  $16x^2y^{10}$                       H.  $8x^2y^{10}$   
 G.  $16x^2y^7$                         J.  $8x^2y^7$

14. What is the equation in slope intercept form of a line that passes through points  $(-5, 7)$  and  $(6, -15)$  ?

- A.  $y = -2x - 3$     C.  $y = 3x + 22$   
 B.  $y = 2x + 3$     D.  $y = \frac{1}{2}x + 4.5$

15. The graph of a linear function is shown on the grid.



What is the rate of change of  $y$  with respect to  $x$  for this function?

Answer : \_\_\_\_\_

16. The table shows a linear relationship between  $x$  and  $y$ .

x	-3	6	9	15
y	9	-6	-11	-21

What is the rate of change of  $y$  with respect to  $x$ ? Answer : \_\_\_\_\_.