

**Chapter 4**  
**Form F**

1. Which of the following ordered pairs is a solution of  $3x - y \geq 4$ ?

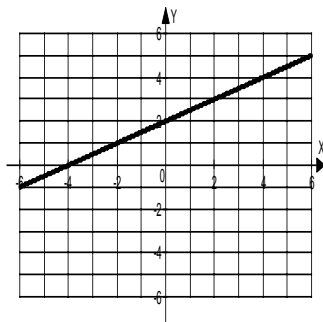
a.  $(2, -6)$

b.  $(1, 1)$

c.  $(4, 1)$

d.  $(5, -1)$

Use the graph below for problems 2 – 4.



2. Identify the  $x$ -intercept and the  $y$ -intercept of the above graph.

a.  $x$ -intercept  $(2, 0)$   
 $y$ -intercept  $(0, 4)$

b.  $x$ -intercept  $(-2, 0)$   
 $y$ -intercept  $(0, -4)$

c.  $x$ -intercept  $(0, 2)$   
 $y$ -intercept  $(4, 0)$

d.  $x$ -intercept  $(0, 2)$   
 $y$ -intercept  $(-4, 0)$

3. Calculate the slope of the line of the above graph.

a. 2

b.  $-2$

c.  $-\frac{1}{2}$

d.  $\frac{1}{2}$

4. Write the equation of the line shown in the above graph in slope-intercept form.

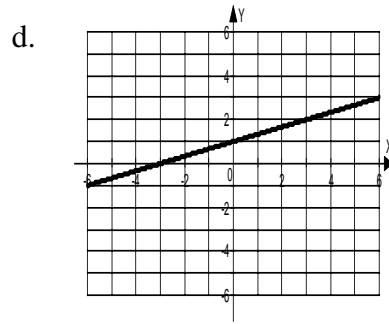
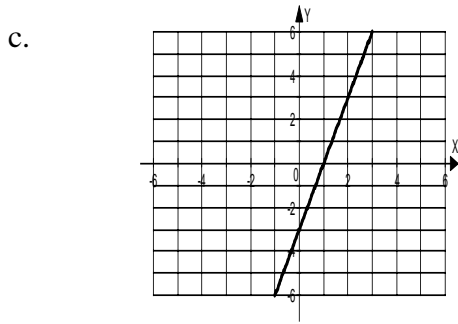
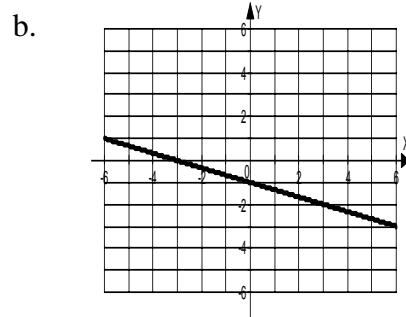
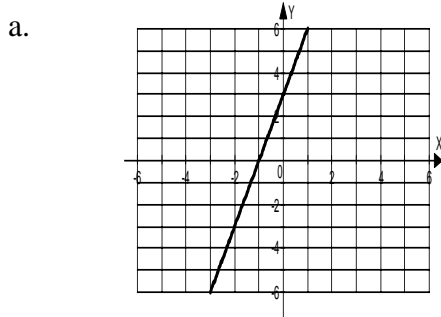
a.  $y = -\frac{1}{2}x + 2$

b.  $y = \frac{1}{2}x + 2$

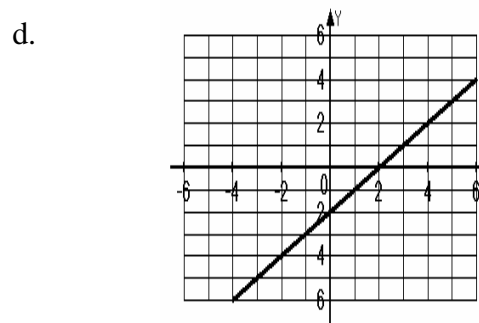
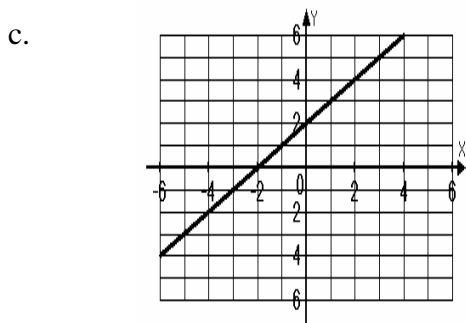
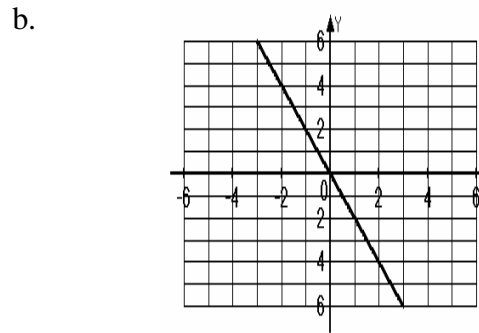
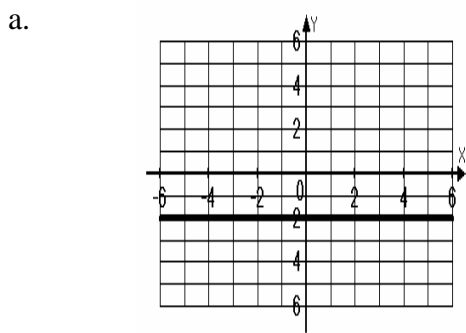
c.  $y = 2x + 2$

d.  $y = -2x + 2$

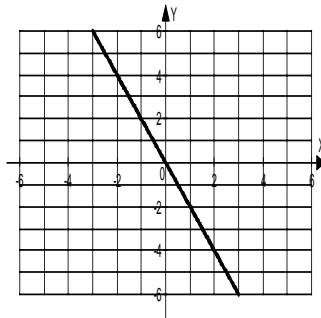
5. Graph the equation  $4x + 3y = 12$ .



6. Graph the equation  $y = x - 2$



Use the graph shown below for problems 7 – 8.



7. Identify the  $x$ - intercept and the  $y$ - intercept of the above graph.

a.  $x$ - intercept (0, 0)  
 $y$ - intercept none

b.  $x$ - intercept (0, 0)  
 $y$ - intercept (0, 0)

c.  $x$ - intercept none  
 $y$ - intercept (0, 0)

d.  $x$ - intercept none  
 $y$ - intercept none

8. Calculate the slope of the line in the above graph.

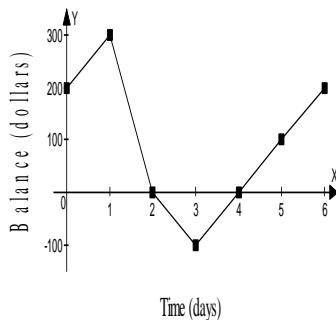
a.  $-2$

b.  $-\frac{1}{2}$

c.  $2$

d. Undefined

The following graph shows the balance in a bank account ( $y$ , in dollars )  $x$  days after the account was opened.



Use the graph for problems 9 –10.

9. What is the meaning of the  $y$  –intercept?

a. On day 2 and 4, the balance was \$0.  
 c. The initial withdrawal was \$200.

b. The initial deposit was \$200.  
 d. The initial deposit was \$0.

10. Where is the minimum and what does it represent?
- $(0, 300)$  On day 1, the balance was \$300.
  - $(2, 0)$  and  $(4, 0)$  On day 2 and 4, the balance was \$0.
  - $(3, -100)$  On day 3, the account was \$100 overdrawn.
  - $(6, 200)$  On day 6, the balance was \$200
11. For the equation  $2x - 5y = 7$ , find the  $x$  and  $y$ - intercept.

a.  $x$ -intercept  $\left(\frac{7}{2}, 0\right)$

$y$ -intercept  $\left(0, -\frac{7}{5}\right)$

c.  $x$ - intercept  $\left(0, \frac{5}{7}\right)$

$y$  intercept  $\left(\frac{2}{7}, 0\right)$

b.  $x$ -intercept  $\left(\frac{7}{5}, 0\right)$

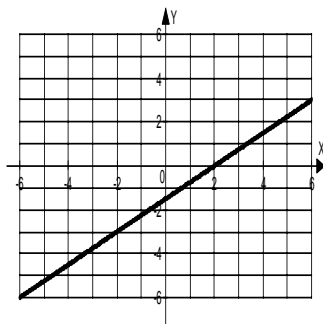
$y$  intercept  $\left(0, \frac{7}{2}\right)$

d.  $x$ -intercept  $\left(\frac{5}{7}, 0\right)$

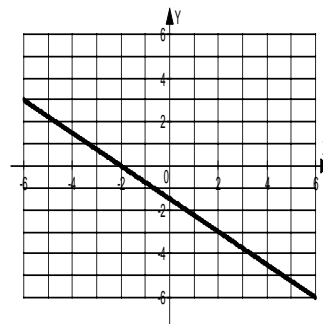
$y$  intercept  $\left(0, \frac{2}{7}\right)$

12. Graph the equation  $3x - 4y = 6$ .

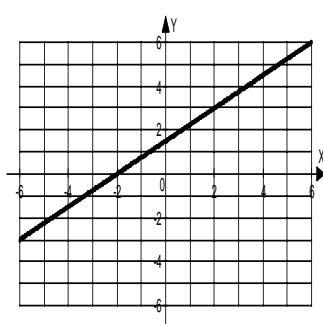
a.



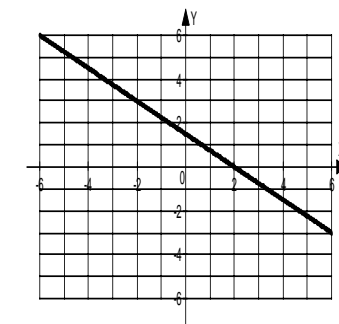
b.



c.



d.

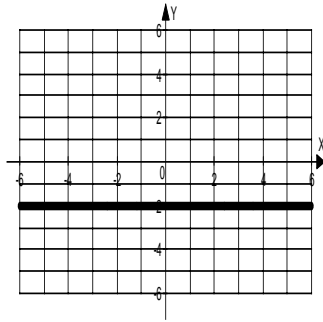


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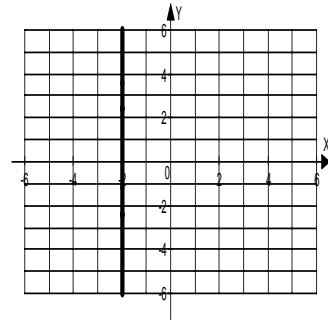
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13. Graph the equation  $y = 2$ .

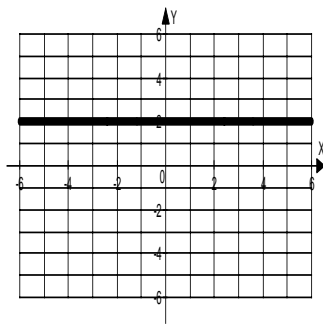
a.



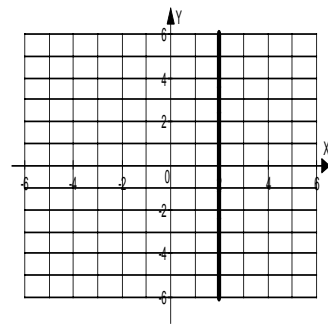
b.



c.

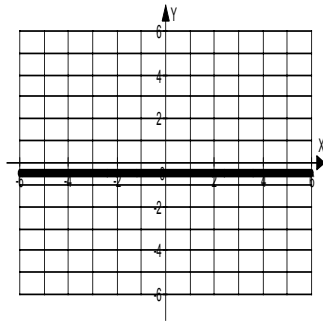


d.

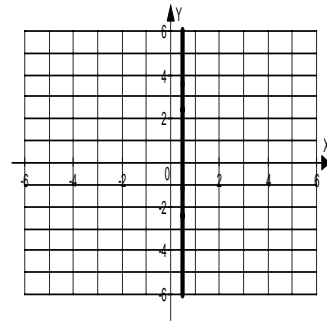


14. Graph the equation  $x = -\frac{1}{2}$ .

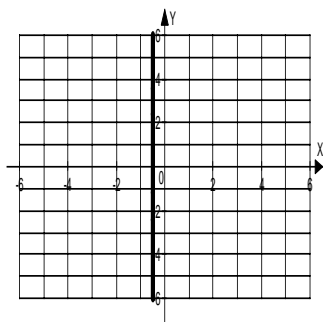
a.



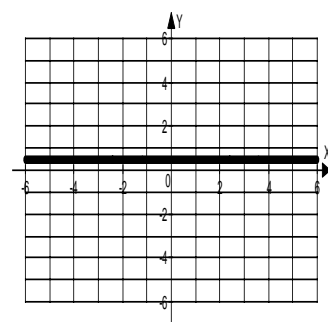
b.



c.



d.



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15. Calculate the slope of the line passing through  $\left(2, \frac{1}{3}\right)$  and  $\left(-5, \frac{1}{3}\right)$ .
- a. 0                      b.  $-7$                       c.  $-3$                       d. Undefined
16. Are the lines  $4x - 2y = 6$  and  $-6x + 3y = 8$  parallel?
- a. yes    b. no
- c. Not enough information                      d. They are the same line.
17. For the equation  $8x - 12y = 24$ , find the slope and y-intercept.
- a. slope  $\frac{2}{3}$ ; y- intercept (0, 2)                      b. slope  $-\frac{2}{3}$ ; y-intercept (0, 2)
- c. slope  $\frac{2}{3}$ ; y- intercept (0,  $-2$ )                      d. slope  $-\frac{2}{3}$ ; y- intercept (0,  $-2$ )
18. Write the point-slope form of the equation of the line passing through  $(-7, 3)$  and  $(4, -2)$ .
- a.  $y - 3 = -\frac{5}{11}(x - 7)$                       b.  $y - 3 = -\frac{5}{11}(x + 7)$
- c.  $y + 3 = -\frac{1}{3}(x - 7)$                       d.  $y - 3 = -\frac{1}{3}(x + 7)$
19. Find the slope of a line that is parallel to the line with the equation  $y = \frac{3}{5}x - 6$ .
- a.  $m = -6$                       b.  $m = -\frac{3}{5}$                       c.  $m = \frac{3}{5}$                       d.  $m = -\frac{5}{3}$
20. Find the slope of a line that is perpendicular to the line with the equation  $5x + 7y = 11$ .
- a.  $m = -\frac{5}{7}$                       b.  $m = \frac{5}{7}$                       c.  $m = \frac{7}{5}$                       d.  $m = -\frac{7}{5}$