

**Chapter 3**  
**Form E**

1. Which of the following ordered pairs is a solution of  $y = -x - 5$  ?  
a.  $(-2, -7)$       b.  $(-2, -3)$       c.  $(3, -2)$       d.  $(-3, -8)$
2. Which of the following ordered pairs is the solution of  $3x - y \geq 4$  ?  
a.  $(-2, 1)$       b.  $(1, 2)$       c.  $(0, -2)$       d.  $(2, -1)$

Use the graph shown in Figure 1 for problems 3 – 5.

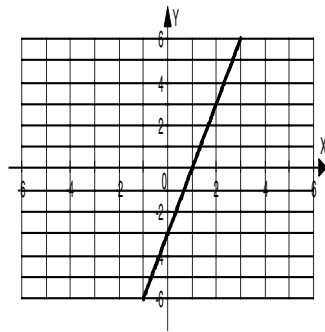


Figure 1

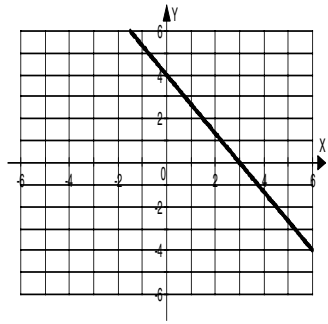
3. Identify the  $x$ - intercept and the  $y$ - intercept of Figure 1.
- a.  $x$ -intercept  $(1, 0)$   
     $y$ -intercept  $(0, -3)$
- b.  $x$ -intercept  $(-3, 0)$   
     $y$ -intercept  $(0, -1)$
- c.  $x$ -intercept  $(0, -3)$   
     $y$ -intercept  $(1, 0)$
- d.  $x$ -intercept  $(0, -1)$   
     $y$ -intercept  $(-3, 0)$
4. Calculate the slope of the line in Figure 1.
- a.  $-3$       b.  $\frac{1}{3}$       c.  $-\frac{1}{3}$       d.  $3$
5. Write the equation of the line shown in Figure 1 in slope-intercept form.
- a.  $y = 3x - 3$       b.  $y = -\frac{1}{3}x - 1$       c.  $y = -3x - 3$       d.  $y = -\frac{1}{3}x - 3$

Name \_\_\_\_\_

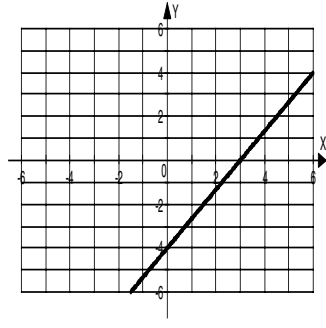
Date \_\_\_\_\_

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

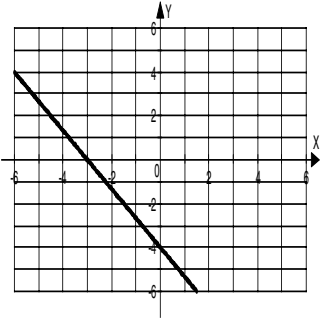
a.



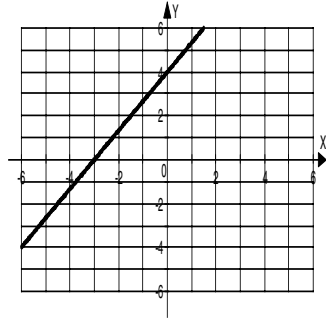
b.



c.

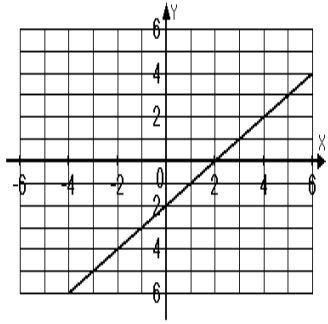


d.

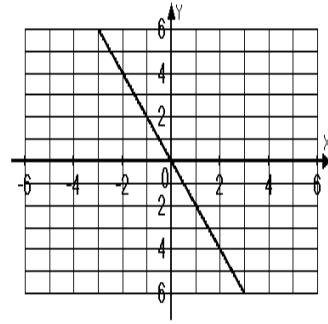


7. Graph the equation  $y = x + 2$

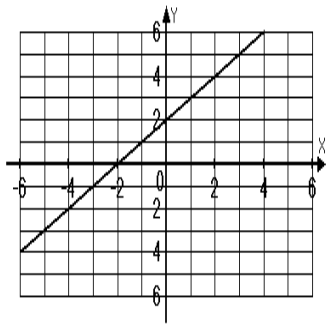
a.



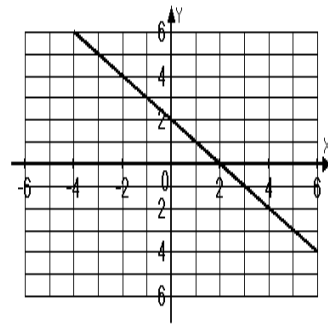
b.



c.



d.



Use the graph shown in Figure 2 for problems 8 – 9.

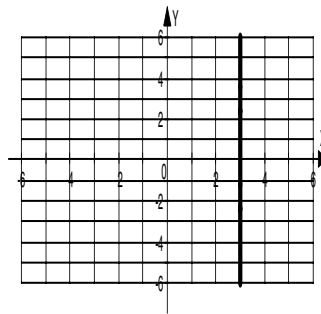
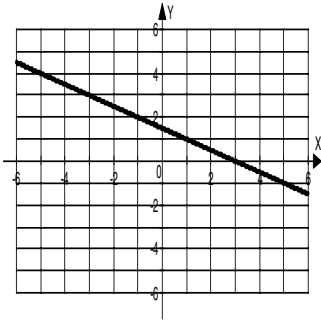


Figure 2

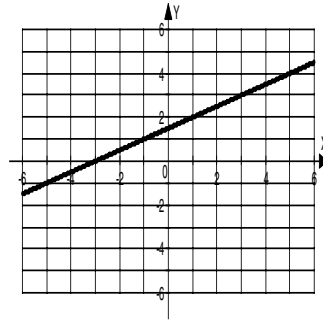
8. Identify the  $x$ -intercept and the  $y$ -intercept of Figure 2.
- |   |   |
|---|---|
| a. $x$ -intercept none<br>$y$ -intercept $(3, 0)$ | b. $x$ -intercept none<br>$y$ -intercept $(0, 3)$ |
| c. $x$ -intercept $(3, 0)$<br>$y$ -intercept none | d. $x$ -intercept $(0, 3)$<br>$y$ -intercept none |
9. Calculate the slope of the line in Figure 2.
- |      |      |      |              |
|------|------|------|--------------|
| a. 3 | b. 1 | c. 0 | d. Undefined |
|------|------|------|--------------|
10. For the equation  $7x - 14y = 7$ , find the  $x$  and  $y$ -intercepts.
- |   |  |
|---|--|
| a. $x$ -intercept $(1, 0)$<br>$y$ -intercept $\left(0, -\frac{1}{2}\right)$ | b. $x$ -intercept $\left(0, \frac{-1}{2}\right)$<br>$y$ -intercept $(-1, 0)$ |
| c. $x$ -intercept $\left(0, \frac{1}{2}\right)$<br>$y$ -intercept $(-1, 0)$ | d. $x$ -intercept $\left(-\frac{1}{2}, 0\right)$<br>$y$ -intercept $(0, 1)$  |

11. Graph the equation  $5x - 10y = 15$ .

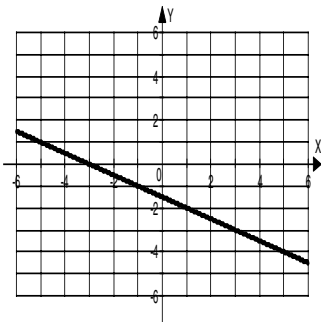
a.



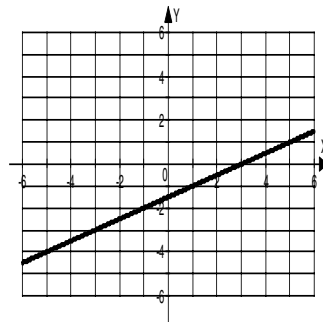
b.



c.

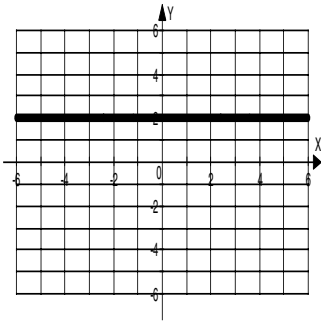


d.

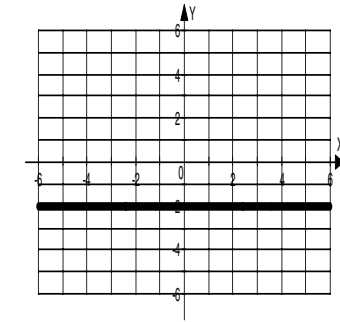


12. Graph the equation  $y = 2$ .

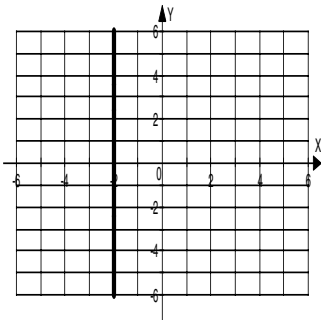
a.



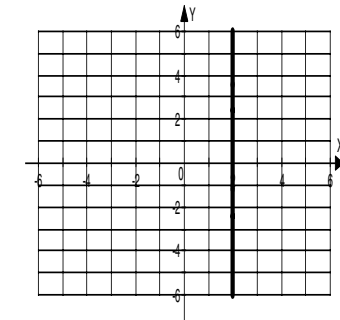
b.



c.



d.



For problems 13 – 14, calculate the slope of the line passing through the given points.

13.  $(-2, -4)$  and  $(3, -2)$

a.  $\frac{2}{5}$

b.  $-\frac{2}{5}$

c.  $-6$

d.  $-\frac{1}{6}$

14.  $(-3, 0)$  and  $(-3, 5)$

a.  $-\frac{5}{6}$

b.  $-\frac{6}{5}$

c.  $0$

d. Undefined

15. For the equation  $5x + 3y = 7$ , find the slope and y-intercept.

a. slope  $-\frac{5}{3}$ ; y-intercept  $\left(0, -\frac{7}{3}\right)$

b. slope  $-\frac{5}{3}$ ; y-intercept  $\left(0, \frac{7}{3}\right)$

c. slope  $\frac{5}{3}$ ; y-intercept  $\left(0, \frac{7}{3}\right)$

d. slope  $\frac{5}{3}$ ; y-intercept  $\left(0, -\frac{7}{3}\right)$

16. Write the point-slope form of the equation of the line passing through the point  $(6, -2)$  and with slope of 8.

a.  $y - 2 = 8(x - 6)$

b.  $y + 2 = 8(x + 6)$

c.  $y - 2 = 8(x + 6)$

d.  $y + 2 = 8(x - 6)$

17. Give the equation of the line that passes through the points  $(0, 3)$  and  $(-4, 5)$ .

a.  $y = -\frac{1}{2}x + 3$

b.  $y = -\frac{1}{2}x - 3$

c.  $y = -2x + 3$

d.  $y = -2x - 3$

18. Find the slope of a line that is parallel to the line with the equation  $y = 3x - 5$ .

a.  $m = 3$

b.  $m = -5$

c.  $m = \frac{1}{3}$

d.  $m = -3$

Name \_\_\_\_\_

Date \_\_\_\_\_

19. Find the slope of a line that is perpendicular to the line with the equation  $y = -\frac{5}{4}x + 1$ .

a.  $m = 1$

b.  $m = \frac{4}{5}$

c.  $m = -\frac{4}{5}$

d.  $m = -1$

20. Find the slope of a line that is perpendicular to the line with the equation  $5x + 3y = 8$ .

a.  $m = 5$

b.  $m = 3$

c.  $m = -\frac{5}{3}$

d.  $m = \frac{3}{5}$