

Chapter 4
Form E

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

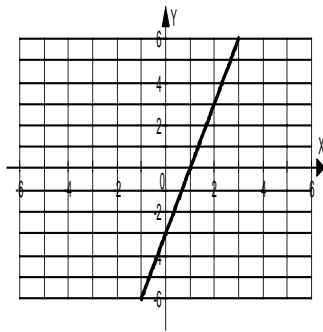
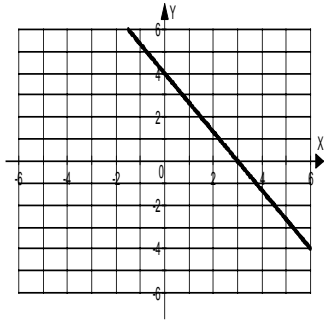


Figure 1

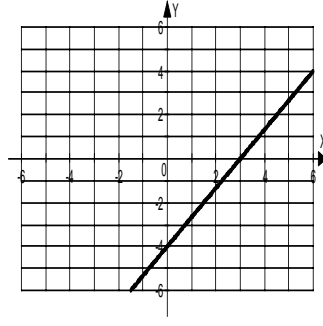
- Identify the x -intercept and the y -intercept of Figure 1.
a. x -intercept $(1, 0)$
 y -intercept $(0, -3)$
b. x -intercept $(-3, 0)$
 y -intercept $(0, -1)$
c. x -intercept $(0, -3)$
 y -intercept $(1, 0)$
d. x -intercept $(0, -1)$
 y -intercept $(-3, 0)$
- Calculate the slope of the line in Figure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

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

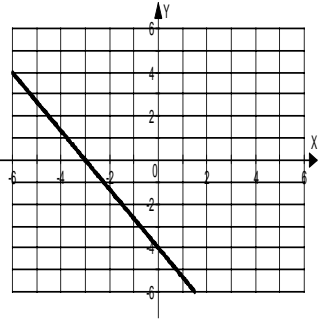
a.



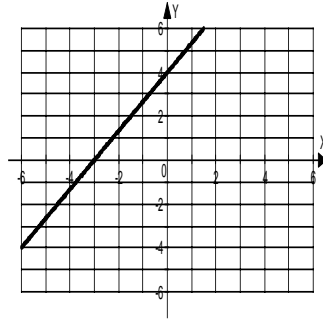
b.



c.

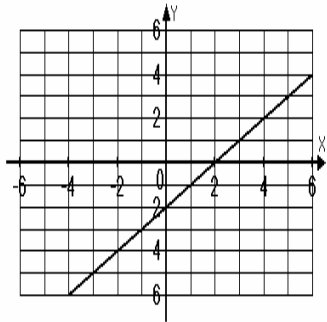


d.

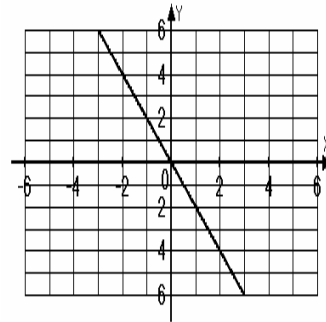


7. Graph the equation $y = x + 2$

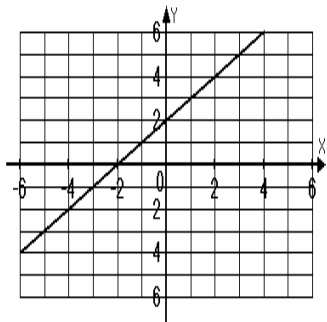
a.



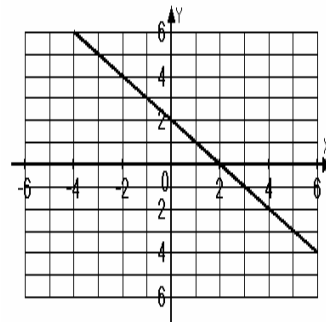
b.



c.



d.



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

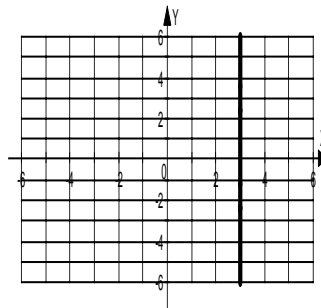
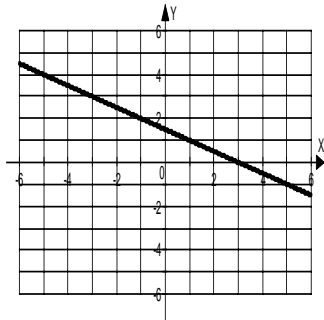


Figure 2

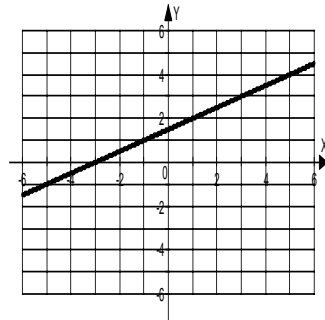
8. Identify the x -intercept and the y -intercept of Figure 2.
- | | |
|---|---|
| a. x -intercept none
y -intercept $(3, 0)$ | b. x -intercept none
y -intercept $(0, 3)$ |
| c. x -intercept $(3, 0)$
y -intercept none | d. x -intercept $(0, 3)$
y -intercept none |
9. Calculate the slope of the line in 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 $(1, 0)$
y -intercept $\left(0, -\frac{1}{2}\right)$ | b. x -intercept $\left(0, \frac{-1}{2}\right)$
y -intercept $(-1, 0)$ |
| c. x -intercept $\left(0, \frac{1}{2}\right)$
y -intercept $(-1, 0)$ | d. x -intercept $\left(-\frac{1}{2}, 0\right)$
y -intercept $(0, 1)$ |

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

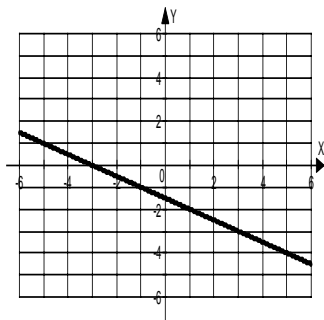
a.



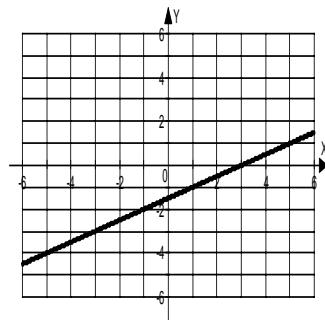
b.



c.

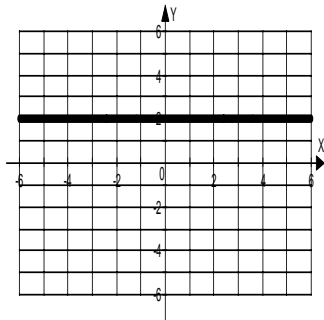


d.

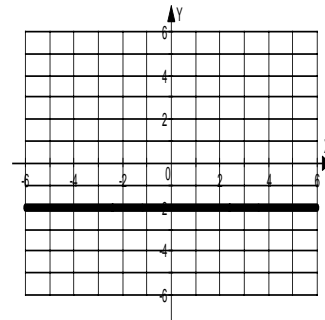


12. Graph the equation $y = 2$.

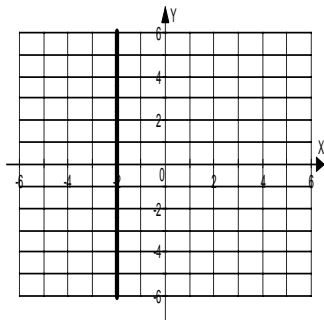
a.



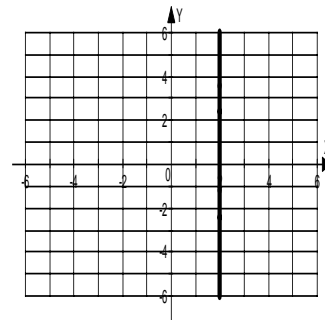
b.



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. $m = -3$

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