

## 3.3

## Slope-Intercept Form

Find the slope and  $y$ -intercept of the graph of each equation.

1.  $y = 3x - 5$   
3; -5

2.  $y = -5x + 13$   
-5; 13

3.  $y = -x - 1$   
-1; -1

4.  $y = -11x + 6$   
-11; 6

5.  $y = -5$   
0; -5

6.  $y = \frac{1}{2}x + 6$   
 $\frac{1}{2}$ ; 6

7.  $y = -6.75x + 8.54$   
-6.75; 8.54

8.  $y = -\frac{2}{3}x - \frac{1}{9}$   
 $-\frac{2}{3}$ ;  $-\frac{1}{9}$

9.  $y = 2.25$   
0; 2.25

Write an equation of a line with the given slope  $m$  and  $y$ -intercept  $b$ .

10.  $m = -1, b = 3$   
 $y = -x + 3$

11.  $m = 4, b = -2$   
 $y = 4x - 2$

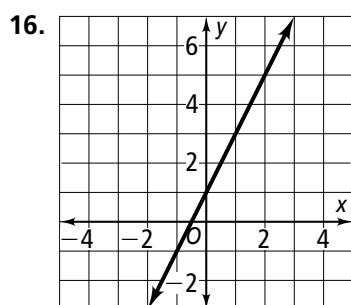
12.  $m = -5, b = -8$   
 $y = -5x - 8$

13.  $m = 0.25, b = 6$   
 $y = 0.25x + 6$

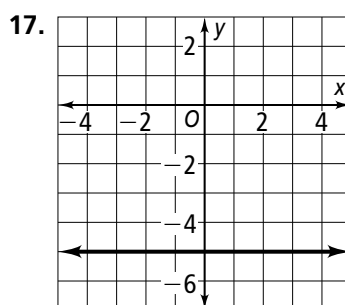
14.  $m = 0, b = -11$   
 $y = -11$

15.  $m = 1, b = \frac{3}{8}$   
 $y = x + \frac{3}{8}$

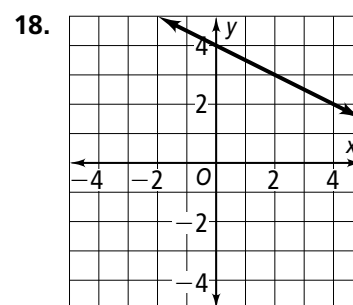
Write an equation in slope-intercept form of each line.



$y = 2x + 1$



$y = -5$



$y = -\frac{1}{2}x + 4$

Write an equation in slope-intercept form of the line that passes through the given points.

19. (3, 5) and (0, 4)  
 $y = \frac{1}{3}x + 4$

20. (2, 6) and (-4, -2)  
 $y = \frac{4}{3}x + \frac{10}{3}$

21. (-1, 3) and (-3, 1)  
 $y = x + 4$

22. (-7, 5) and (3, 0)  
 $y = -\frac{1}{2}x + \frac{3}{2}$

23. (10, 2) and (-2, -2)  
 $y = \frac{1}{3}x - \frac{4}{3}$

24. (0, -1) and (5, 6)  
 $y = \frac{7}{5}x - 1$

25. (3, 2) and (-1, 6)  
 $y = -x + 5$

26. (-4, -3) and (3, 4)  
 $y = x + 1$

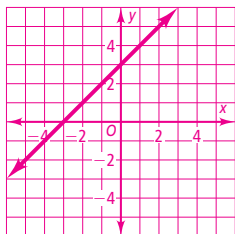
27. (2, 8) and (-3, 6)  
 $y = \frac{2}{5}x + \frac{36}{5}$

## 3.3

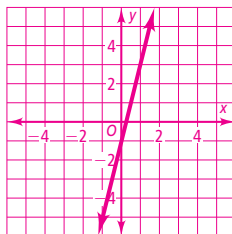
## Slope-Intercept Form

Graph each equation.

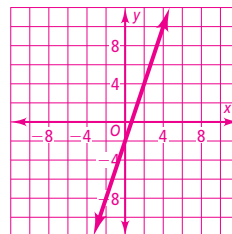
28.  $y = x + 3$



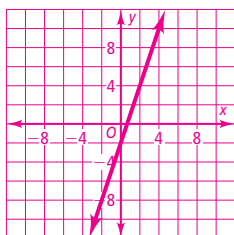
29.  $y = 4x - 1$



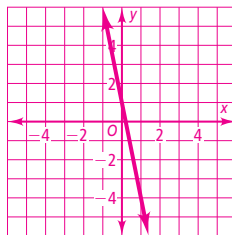
30.  $y = -x + 6$



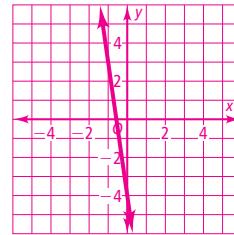
31.  $y = 3x - 2$



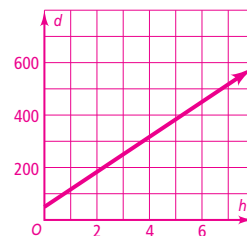
32.  $y = -5x + 1$



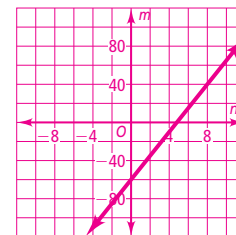
33.  $y = -7x - 4$



34. Hudson is already 40 miles away from home on his drive back to college. He is driving 65 mi/h. Write an equation that models the total distance  $d$  travelled after  $h$  hours. What is the graph of the equation?  $d = 65h + 40$



35. When Phil started his new job, he owed the company \$65 for his uniforms. He is earning \$13 per hour. The cost of his uniforms is withheld from his earnings. Write an equation that models the total money he has  $m$  after  $h$  hours of work. What is the graph of the equation?  $m = 13h - 65$

Find the slope and the  $y$ -intercept of the graph of each equation.

36.  $y + 4 = -6x$

$m = -6; b = -4$

37.  $y + \frac{1}{2}x = -4$

$m = -\frac{1}{2}; b = -4$

38.  $3y - 12x + 6 = 0$

$m = 4; b = -2$

39.  $y - 5 = \frac{1}{3}(x - 9)$

$m = \frac{1}{3}; b = 2$

40.  $y - \frac{2}{5}x = 0$

$m = \frac{2}{5}; b = 0$

41.  $2y + 6a - 4x = 0$

$m = 2; b = -3a$