

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

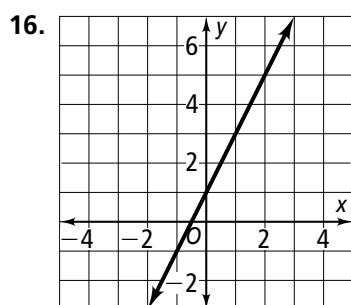
12. $m = -5, b = -8$
 $y = -5x - 8$

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

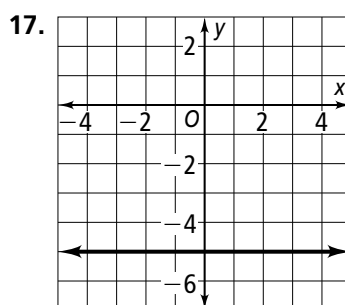
14. $m = 0, b = -11$
 $y = -11$

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

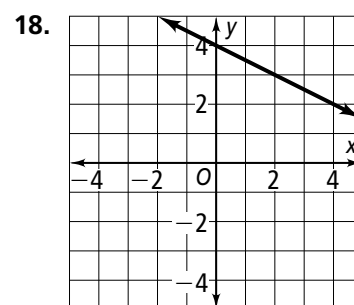
Write an equation in slope-intercept form of each line.



$y = 2x + 1$



$y = -5$



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

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)
 $y = x + 1$

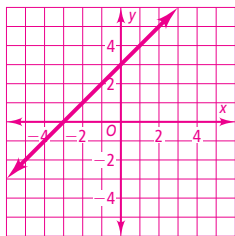
27. (2, 8) and (-3, 6)
 $y = \frac{2}{5}x + \frac{36}{5}$

3.3

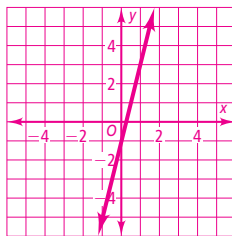
Slope-Intercept Form

Graph each equation.

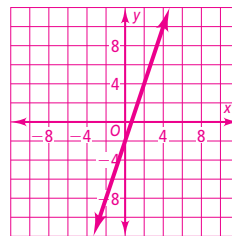
28. $y = x + 3$



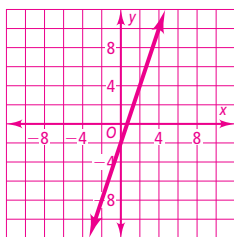
29. $y = 4x - 1$



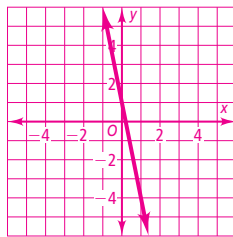
30. $y = -x + 6$



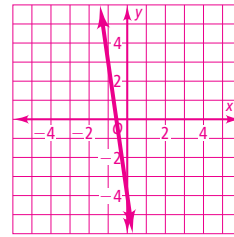
31. $y = 3x - 2$



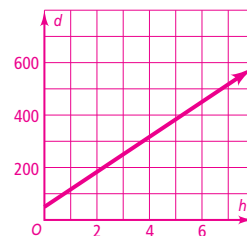
32. $y = -5x + 1$



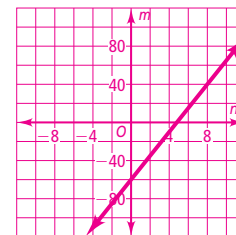
33. $y = -7x - 4$



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

$m = 2; b = -3a$