

Unit 2.2 Practice Slope Intercept Form

Period: _____

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

1. $y = 3x - 5$

$m = 3; b = -5$

2. $y = -5x + 13$

$m = -5; b = 13$

3. $y = -x - 1$

$m = -1; b = -1$

4. $y = -11x + 6$

$m = -11; b = 6$

5. $y = -5$

$m = 0; b = -5$

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

$m = \frac{1}{2}; b = 6$

7. $y = -6.75x + 8.54$

$m = -6.75; b = 8.54$

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

$m = -\frac{2}{3}; b = -\frac{1}{9}$

9. $y = 2.25$

$m = 0; b = 2.25$

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. $m = 0.25, b = 6$

$y = 0.25x + 6$

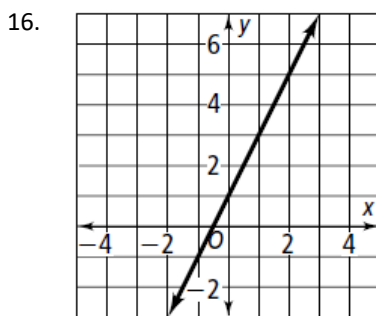
14. $m = 0, b = -11$

$y = -11$

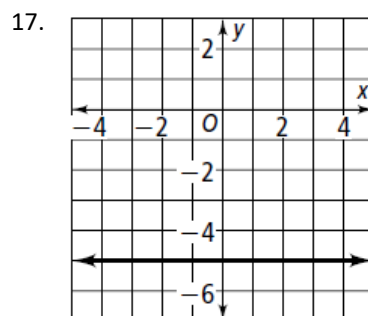
15. $m = -1, b = \frac{3}{8}$

$y = -x + \frac{3}{8}$

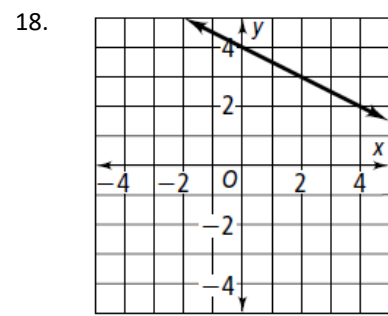
Write an equation in slope-intercept form of each line.



$y = 2x + 1$



$y = -5$



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

Write an equation of a line with the given points on the line.

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 $(3, 4)$

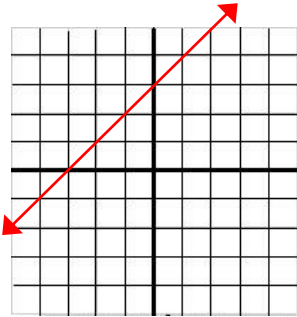
$y = x + 1$

27. $(2, 8)$ and $(-3, 6)$

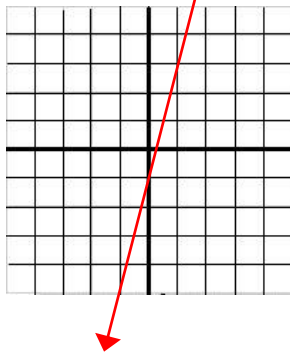
$y = \frac{2}{5}x + \frac{36}{5}$

Graph each equation.

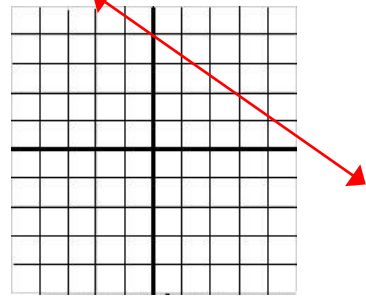
28. $y = x + 3$



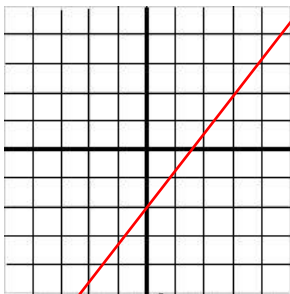
29. $y = 4x - 1$



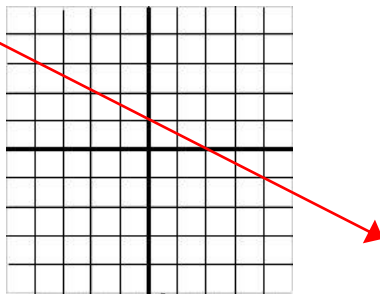
30. $y = -\frac{2}{3}x + 4$



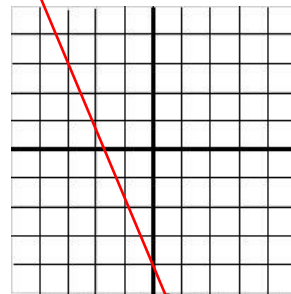
31. $y = \frac{4}{3}x - 2$



32. $y = -0.5x + 1$



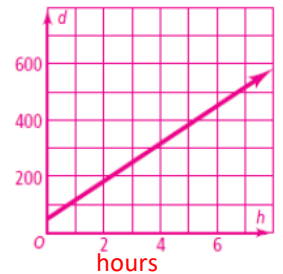
33. $y = -\frac{5}{2}x - 4$



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?

$d = 65h + 40$

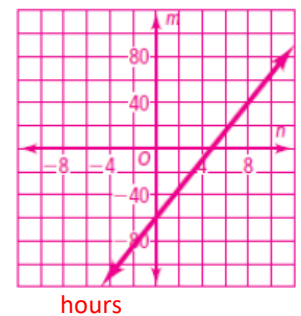
distance (miles)



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?

$m = 13h - 65$

money \$



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

$m = 2; b = -3a$