Practice 6-2

Slope-Intercept Form

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

1. \( y = x + 2 \)
2. \( y + 3 = -\frac{1}{3}x \)
3. \( y = 2x - 1 \)
4. \( y - \frac{3}{5}x = -1 \)
5. \( y = \frac{1}{2}x - 4 \)
6. \( y - 2x = -3 \)
7. \( y = \frac{2}{5}x + 3 \)
8. \( y + \frac{1}{3}x = -2 \)
9. \( y = -x - 2 \)
10. \( y - 6 = -2x \)
11. \( y = -5x - 2 \)
12. \( y + x = 0 \)
13. \( y + 4 = 2x \)
14. \( y = -5x + 5 \)
15. \( y = -4 + x \)
16. \( y = -4x \)
17. \( y = \frac{4}{5}x + 2 \)
18. \( y - \frac{3}{4}x = -5 \)
19. \( y = -6 \)
20. \( y - 3 = -\frac{2}{3}x \)
21. \( y = -\frac{7}{4}x + 6 \)
22. \( y + 3x = 6 \)
23. \( y + \frac{1}{3}x = -2 \)
24. \( y = \frac{3}{7}x \)

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

25. \( m = 4, b = 8 \)
26. \( m = -2, b = -6 \)
27. \( m = \frac{4}{3}, b = 0 \)
28. \( m = -\frac{9}{5}, b = -7 \)
29. \( m = -6, b = 1 \)
30. \( m = \frac{3}{7}, b = -1 \)
31. \( m = -\frac{1}{5}, b = -3 \)
32. \( m = 9, b = 4 \)
33. \( m = -8, b = 11 \)
34. \( m = \frac{2}{9}, b = 0 \)
35. \( m = -11, b = 13 \)
36. \( m = -\frac{7}{2}, b = -6 \)

Write the slope-intercept form of the equation for each line.

37. 
38. 
39. 

40. 
41. 
42. 

43. A television production company charges a basic fee of \$4000\) and then \$2000 per hour when filming a commercial.

a. Write an equation in slope-intercept form relating the basic fee and per-hour charge.

b. Graph your equation.

c. Use your graph to find the production costs if 4 hours of filming were needed.