Pg. 67 #1-15 odd, 19-35 odd (write in y=mx+b form and **skip #23**), 66,67

**Graph each equation. Check your work.**

1. $y = 2x$          2. $y = -3x - 1$          3. $y = 3x - 2$          4. $y = -4x + 5$

5. $5x - 2y = -4$    6. $-2x + 5y = -10$  7. $y - 3 = -2x$          8. $y + 4 = -3x$

9. **Cost Analysis**  The equation $y - 0.23x = 0$ relates the cost of operating a car
to the number of miles driven, where $x$ is the number of miles driven and $y$ is
the cost.
   a. Graph the equation and determine the domain and range.
   b. Explain what the $x$- and $y$-intercepts represent.
   c. Explain what 0.23 represents.

10. **Fund-Raising**  The school glee club needs a total of $4500 for a trip to Omaha,
Nebraska. To make money, members are selling baseball caps for $4.50 and
sweatshirts for $12.50.
   a. Graph the equation $4.5x + 12.5y = 4500$, where $x$ is the number of baseball
      caps and $y$ is the number of sweatshirts sold.
   b. Explain the meaning of the $x$- and $y$-intercepts in terms of the fund-raising.

**Find the slope of the line through each pair of points.**

11. $(1, 6)$ and $(8, -1)$          12. $(-3, 9)$ and $(0, 3)$          13. $(0, 0)$ and $(2, 6)$

14. $(-4, -3)$ and $(7, 1)$          15. $(-2, -1)$ and $(8, -3)$          16. $(1, 2)$ and $(2, 3)$

17. $\left(\frac{2}{3}, \frac{4}{7}\right)$ and $\left(\frac{2}{3}, \frac{11}{7}\right)$          18. $(-3, 5)$ and $(4, 5)$          19. $(-5, -7)$ and $(0, 10)$

**Write in standard form the equation of each line.**

20. slope $= 3; (1, 5)$          21. slope $= \frac{5}{6}; (22, 12)$          22. slope $= -\frac{3}{5}; (-4, 0)$

23. slope $= 0; (4, -2)$          24. slope $= -1; (-3, 5)$          25. slope $= 5; (0, 2)$

**Write in point-slope form the equation of the line through each pair of points.**
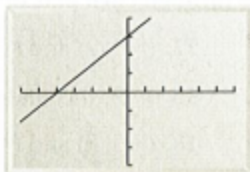
26. $(-10, 3)$ and $(-2, -5)$   27. $(1, 0)$ and $(5, 5)$          28. $(-4, 10)$ and $(-6, 15)$

29. $(0, -1)$ and $(3, -5)$          30. $(7, 11)$ and $(13, 17)$          31. $(1, 9)$ and $(6, 2)$

**Find the slope of each line.**

32. $5x + y = 4$          33. $-3x + 2y = 7$          34. $-\frac{1}{2}x - y = \frac{3}{4}$

35. $Ax + By = C$          36. $Ax - By = C$          37. $y = 7$

**Write an equation for each line. Each interval is 1 unit.**

66.          67.          68.