

2-41. If $y = \frac{1}{2}x - 4$:

- a. What is the slope of the line?
- b. What is the *y*-intercept of the line?
- c. Graph the line.

2-42. Without graphing, find the slope of each line described below

- a. A line that goes through the points (4, 1) and (2, 5).
- b. A line that goes through the origin and the point (10, 5).
- c. A vertical line (one that travels "up and down") that goes through the point (6, -5).
- d. A line that goes through the points (1, 6) and (10, 6).

2-43. Ms. Cai's class is studying a tile pattern. The rule for the tile pattern is y = 10x - 18. Kalil thinks that Figure 12 of this pattern will have 108 tiles. Is he correct? Justify your answer.

2-44. State the slope and *y*-intercept of each line.

	Slope	y-intercept
a. $y = \frac{5}{3}x - 4$		
b. $y = -\frac{4}{7}x + 3$		
c. $y = -5$		

2-45. Evaluate the expressions below for the given values.

a.
$$-x^2 + 3x$$
 for $x = -3$
b. $5 - (x - 2)^2$ for $x = -1$

c.
$$\frac{-5}{k+1}$$
 for $k = -1$
d. $\left|\frac{x}{x+y}\right| - x^2 + y$ for $x = 2, y = -3$