

Suggested Answers

Lesson 2

SC 5.

$$\begin{aligned} \text{a. } m &= \frac{y_2 - y_1}{x_2 - x_1} \\ &= \frac{0 - 4}{2 - 0} \\ &= \frac{-4}{2} \\ &= -2 \end{aligned}$$

Since the y -intercept is known, the equation can be written as $y = -2x + 4$.

$$\begin{aligned} \text{b. } m &= \frac{y_2 - y_1}{x_2 - x_1} & y - 6 &= \frac{1}{2}(x - 6) \\ &= \frac{6 - 4}{6 - 2} & y - 6 &= \frac{1}{2}x - 3 \\ &= \frac{2}{4} & y &= \frac{1}{2}x + 3 \\ &= \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \text{c. } m &= \frac{y_2 - y_1}{x_2 - x_1} & y - (-4) &= -\frac{5}{3}(x - 1) \\ &= \frac{-4 - 1}{1 - (-2)} & y + 4 &= -\frac{5}{3}x + \frac{5}{3} \\ &= \frac{-5}{3} & y &= -\frac{5}{3}x + \frac{5}{3} - 4 \\ &= -\frac{5}{3} & y &= -\frac{5}{3}x - \frac{7}{3} \end{aligned}$$