

Self Check 4 Answers

a.

$$y = \frac{4}{3}x + 5 \text{ **subtract } y \text{ from both sides**}$$

$$y - y = \frac{4}{3}x - y + 5$$

$$0 = \frac{4}{3}x - y + 5 \text{ **multiply every term by 3**}$$

$$3(0) = 3\left(\frac{4}{3}x\right) - 3(y) + 3(5)$$

$$0 = 4x - 3y + 15 \text{ or}$$

$$4x - 3y + 15 = 0$$

b.

$$y - 7 = -\frac{1}{2}(x + 3) \text{ **multiply the } -\frac{1}{2} \text{ through the brackets}$$

$$y - 7 = -\frac{1}{2}x - \frac{3}{2} \text{ **move the } y - 7 \text{ to the right side**}$$

$$y - y - 7 + 7 = -\frac{1}{2}x - \frac{3}{2} - y + 7$$

$$0 = -\frac{1}{2}x - y - \frac{3}{2} + 7 \text{ **multiply every term by } -2$$

$$0 = -2\left(-\frac{1}{2}x\right) - (-2)y - 2\left(-\frac{3}{2}\right) + (-2)7$$

$$0 = x + 2y + 3 - 14 \text{ **combine the last numbers}$$

$$0 = x + 2y - 11 \text{ or}$$

$$x + 2y - 11 = 0$$