

Write in Vertex Form

$$y = x^2 + 5x - 7$$

$$y + 7 = x^2 + 5x$$

$$\left(\frac{b}{2}\right)^2 = \left(\frac{5}{2}\right)^2 = \frac{25}{4}$$

$$y + 7 + \frac{25}{4} = x^2 + 5x + \frac{25}{4}$$

$$y + \frac{28}{4} + \frac{25}{4} = \left(x + \frac{5}{2}\right)^2$$

$$y + \frac{53}{4} = \left(x + \frac{5}{2}\right)^2$$

$$y = \left(x + \frac{5}{2}\right)^2 - \frac{53}{4}$$

$$\left(-\frac{5}{2}, -\frac{53}{4}\right)$$