

Standard form $\rightarrow$ Vertex form

$$y = x^2 + 10x + 27$$

$$h = -5$$

$$k = 2$$

$$a = 1$$

$$x = -\frac{b}{2a}$$

$$y = a(x-h)^2 + k$$

$$y = 1(x - (-5))^2 + 2$$

$$y = (x + 5)^2 + 2$$