

WRITE THE QUADRATIC IN VERTEX FORM

- Move the constant

$$y = x^2 - 4x - 1$$

- Add $(b/2)^2$ to each side

$$y + 1 = x^2 - 4x$$

- Factor the perfect square trinomial

$$y + 1 + 4 = x^2 - 4x + 4$$

- Write in the form $y = a(x - h)^2 + k$

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

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

- Now let's Graph!