Solve Quadratics by Completing the Square

The quadratic is not factorable but we are going to force it to be a perfect square trinomial.

Steps to Complete the Square:

- 1. Move constant to one side and the terms with variables on the other.
- 2. Then, Do Something Awesome
- 3. Factor
- 4. Solve

Solve by Completing the Square.

$$x^2 + 16x - 100 = -3$$

$$k^2 + 4k - 56 = 10$$

$$8x^2 - 16x - 88 = 7x^2$$

$$m^2 + 6m - 4 = 0$$

$$m^2 - 12m - 47 = -2$$

$$-4m^2 + 10m - 71 = 4 - 5m^2$$