Quadratic Formula

The quadratic formula can be used to solve quadratics that are in the form $ax^2+bx+c=0$.

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Rearrange your equation into $ax^2+bx+c=0$ before substituting in any values for a, b, and c.

Pay special attention to your signs!

$$\boxed{a}x^2 + \boxed{b}x + \boxed{c} = 0$$

$$x = -\frac{\boxed{b} \pm \sqrt{\boxed{b}^2 - 4\boxed{a}\boxed{c}}}{2\boxed{a}}$$

Solve $3x^2-4x = -4$.

$$\boxed{a}x^2 + \boxed{b}x + \boxed{c} = 0$$

$$x = -\frac{\boxed{b} \pm \sqrt{\boxed{b}^2 - 4\,\boxed{a}\,\boxed{c}}}{2\,\boxed{a}}$$

Solve $5x^2-2x - 1 = 0$

$$\boxed{a}x^2 + \boxed{b}x + \boxed{c} = 0$$

$$x = -\frac{\boxed{b} \pm \sqrt{\boxed{b}^2 - 4\,\boxed{a}\,\boxed{c}}}{2\,\boxed{a}}$$