

Quadratic Formula Review

UNIT ____ LESSON ____ INVESTIGATION ____ NOTES

Lesson Vocabulary

Quadratic Formula - To solve for zeros.

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

$$ax^2 + bx + c = 0$$

* must be in standard form *

Example Problem(s)

ex.) Solve by Quadratic Formula.

$$a) 2x^2 - 5x - 3 = 0$$

$$a=2, b=-5, c=-3$$

$$x = \frac{-(-5) \pm \sqrt{(-5)^2 - 4(2)(-3)}}{2(2)}$$

$$x = \frac{5 \pm \sqrt{49}}{4} = \frac{5 \pm 7}{4}$$

$$x = \frac{5+7}{4}$$

$$x = \frac{5-7}{4}$$

$$x = 3$$

$$x = -\frac{1}{2}$$

$$b) 3x^2 - 10x = -5$$

$$3x^2 - 10x + 5 = 0$$

$$a=3, b=-10, c=5$$

$$x = \frac{-(-10) \pm \sqrt{(-10)^2 - 4(3)(5)}}{2(3)}$$

$$x = \frac{10 \pm \sqrt{40}}{6}$$

$$x = \frac{10 + \sqrt{40}}{6}$$

$$x = \frac{10 - \sqrt{40}}{6}$$

$$x = 2.72$$

$$x = 0.61$$