

Day 5: Quadratic Formula

Date _____

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1) When our quadratic equations will not factor, there is a method we can use to solve quadratic equations, called the _____.

****You need to memorize this equation!****

The quadratic formula is:

Standard Form $y = Ax^2 + Bx + C$

2) The values of A , B , and C come from having the quadratic equation in Standard Form, where A and B are the _____ and C is the _____.

*Note: in order for the quadratic formula to work the equation must be set equal to _____.

3) Is this equation able to be factored?

$$y = x^2 + 4x - 9$$

Since the answer was no, we will use the quadratic formula to find the x -intercepts. First, we must identify the following:

$$A = \underline{\hspace{2cm}} \quad B = \underline{\hspace{2cm}} \quad C = \underline{\hspace{2cm}}$$

Now plug in the values of A , B , and C to the quadratic formula:

Next, we want to solve for x by reducing our quadratic formula:

Identify a , b , and c . Then find the x -intercepts using the quadratic formula.

4) $y = -2x^2 + 5x + 25$

5) $y = -x^2 + 3x + 10$

6) $y = 9x^2 + 6x + 4$

7) $y = 3x^2 - 17$

8) $f(x) = 4x^2 + 5x + 1$

9) $f(x) = 2x^2 - 4x + 5$

$$10) y = 2x^2 - 11x - 40$$

$$11) y = 3x^2 - 300$$

$$12) y = 5x^2 - 625$$

$$13) y = 6x^2 + 11x + 3$$

$$14) f(x) = 10x^2 + 11x + 5$$

$$15) f(x) = 12x^2 - 9x + 10$$