

	Warm Up - Factor
1.	$-x^2 + 5x - 6$
2.	$y^2 - 81$
3.	$2n^2 - 15n - 27$
4.	$3x^2 + 27$
5.	Complete the Square. $x^2 - 8x + 23 = 0$

Sep 27-8:04 PM

<i>The Quadratic Formula</i>
$ax^2 + bx + c = 0$
$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Sep 29-4:35 PM

$2x^2 + x - 10 = 0$
$3x^2 - 6 = -3x$

Apr 1-6:46 PM

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

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$$x^2 - 6x + 13 = 0$$

$$3x^2 - 5x + 9 = 0$$

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$$2x^2 + 6x = -7$$

$$-2x^2 + 8x - 5 = 0$$

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The Discriminant

$$b^2 - 4ac$$

The discriminant identifies the number and the type of solutions of a quadratic equation.

If $b^2 - 4ac > 0$ then 2 real solutions

If $b^2 - 4ac = 0$ then 1 real solution

If $b^2 - 4ac < 0$ then 2 imaginary solutions

Apr 1-6:48 PM

Find the Discriminant and Create a Sketch of the graph that would have that discriminant. Be sure to consider which direction the graph will open. Describe the types of solutions each quadratic equation will have.

a. $x^2 + 4x + 5 = 0$

b. $x^2 - 4x - 5 = 0$

c. $4x^2 + 20x + 25 = 0$

Apr 1-7:09 PM

You Try....

1. $2x^2 + x + 28 = 0$

2. $2x^2 + 7x - 15 = 0$

3. $x^2 - 12x + 36 = 0$

Oct 20-8:31 AM