Name: _____ Date: _____

CC ALGEBRA 2 TROICI

LESSON #3: USING THE QUADRATIC FORMULA (DAY 2)

Do Now: Simplify: $\frac{-4+\sqrt{8}}{2}$

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1. Consider the following polynomial equation.

$$(x^2 - 4x + 3)(x^2 + 4x - 5) = 0$$

   a. What is the degree of this polynomial? How do you know?

   b. How many solutions to this equation should there be?

   c. Let's solve this equation.

$$(x^2 - 4x + 3)(x^2 + 4x - 5) = 0$$

2. Find the x-intercepts in simplest radical form.

$$(x^2 - 6x + 9)(2x^2 - 4x - 7) = 0$$

Quadratic Formula (On reference sheet) $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

3. Find all real solutions to $x^3 - 8x^2 - 2x + 16 = 0$.

Practice:

4. Find the roots to the nearest tenth. $x^2 + 4x + 2 = 0$ in simplest radical

5. Find all real solutions to the equation

   form.

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

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LAB #5

1. Find all zeroes: $(x^2 - 6x - 7)(x^2 - 6x + 4) = 0$

Quadratic Formula:

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

2. Find all real solutions to the equation to the nearest hundredth and in simplest radical form.

$x^2 - 7x = 7x + 8$

Factor the following completely:

3. $4x^2 - 9$

4. $x^3 + 3x^2 - 4x - 12$

5. $6x^2 + x - 12$