Unit 8, Lesson 16

Working with Quadratics

Let's explore terms in a quadratic equation.

16.1 Order of Operations and Roots

Find the value of these expressions.

1. $\frac{\sqrt{16}}{2}$

2. $(\sqrt{25})^2 + 6.2)$

3. $\sqrt{4^2 + 3^2}$

16.2 Finding Coefficients

Rewrite the equation in standard form $ax^2 + bx + c = 0$, then find the values of a, b, and c. Finally, compute $b^2 - 4ac$.

	$ax^2 + bx + c = 0$	a	b	c	$b^2 - 4ac$
$x^2 - 3x + 5 = 0$					
$3x^2 - 4 = -x$					
$3x^2 + 5x = 9 - 4x$					
$\frac{2x^2}{3} + 6x - 13 = 13$					
$(x + 2)(x - 3) = 0$					

16.3 Practicing Methods for Solving Quadratic Equations

Solve each of these quadratic equations. Explain or show your reasoning for the method you choose to use.

1. $x^2 - 3x - 4 = 0$

2. $x^2 + x = 6$

3. $x^2 + 6x + 7 = 5$

4. $x^2 + 12 = 7x$

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