Graphing and Quadratic Forms

1. Change into vertex and intercept form and then graph the parabola.
2. Change into standard form and then graph the parabola.
3. Change into standard form.

Solving, x-intercepts, zeros, and roots.

1. Solve by factoring separating and solving
2. Solve by using the quadratic formula
3. Solve by completing the square

Factoring



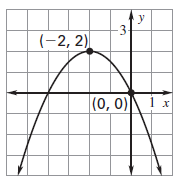
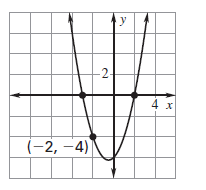
Radicals



Imaginary Numbers



Writing Quadratic Equations

1. Write an equation in vertex form of the graph. 
2. Write and equation in intercept form of the graph. 

Word Problem #1

1. The dimensions of the old stage at the concert hall were 30 feet wide and 15 feet deep. The new stage has a total area of 1000 square feet. The dimensions of the new stage were created by adding the same distance *x* to the width and the depth of the old stage dimensions. What is the value of *x*?

Word Problem #2

1. A contestant tosses a horseshoe from one pit to another with an initial vertical velocity of 50 feet per second. The horseshoe is released 3 feet above the ground. Use the model *h* = − 16*t*2 + 50*t* + 3 where *h* is the height (in feet) and *t* is the time (in seconds) to tell how long the horseshoe was in the air when it’s 2 feet high.