Graphing and Quadratic Forms

1. Change $x^{2}-10x+16=y$ into vertex and intercept form and then graph the parabola.
2. Change $(x-4)^{2}+16=y$ into standard form and then graph the parabola.
3. Change $(x+3)(x-11)=y$ into standard form.

Solving, x-intercepts, zeros, and roots.

1. Solve by factoring separating and solving $x^{2}-10x+16=0$
2. Solve by using the quadratic formula $5x^{2}-7x=-13$
3. Solve by completing the square $x^{2}-10x+9=0$

Factoring

1. $x^{2}-5x-66$
2. $13x^{2}-39x-52$
3. $x^{2}-121$
4. $20x^{2}-245$

Radicals

1. $2\sqrt{28}\*3\sqrt{8}$
2. $\sqrt{\frac{25}{36}}$
3. $\frac{7}{2-\sqrt{3}}$

Imaginary Numbers

1. $\left(-6+2i\right)-(5-2i)$
2. $(2-5i)^{2}$
3. $\frac{7}{2-3i}$

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.