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Youngker High School
2nd Period - Honors Algebra I

Date: 2/18/2016

Objective(s):

Students will review their understanding of quadratic equations through bell work questions that has them exercising their knowledge of quadratics, using inverse operations, factoring, completing the square, and the quadratic formula.

Students will discuss how to solve quadratics using any method by working on examples in whole class, small groups, and individually.

Students will discuss how to solve quadratic word problems by working on examples in whole class, small groups, and individually.

Students will practice solving quadratic word problems by completing a MathXL Homework.

Standards:

MP.1 - Make sense of problems and persevere in solving them.

MP.2 - Reason abstractly and quantitatively.

MP.4 - Model with mathematics.

MP.7 - Look for an make use of structure.

MP.8 - Look for and express regularity in repeated reasoning.

A-REI.4 - Solve quadratic equations in one variable.

Materials:

Student notebooks/writing utencils

Student laptops

Teacher Laptop/Classroom Projector

Notebook File created for today's lesson

Assessments:

MathXL Homework on Problem Solving with Quadratics

Quadratics Test (tomorrow)

Midterm Exam (March 4th)

Quadratics Project

Procedures:

Set

1. Students enter the room and begin working on the bell work on the board immediately. This bell work is a warm up that reviews solving quadratics using any method.

2. Go over the bell work with the students, ensuring that everyone gets the correct answers written in their notebooks to help students with exposure to the concept.

Q: Which method works best in this situation? Why?

Q: Why do we want to make the equation equat to zero?

Q: Can we factor it?

Q: How many solutions do we have?

3. Provide direct instruction using the bell work examples as ways of explaining solving quadratics using any method.

4. Introduce how we can use the skills we have learned to solve quadratics to solve problems.

5. Go over examples in class of various word problems required quadratics to solve.

Content

6. Have students practice independently solving problems using quadratics by doing a MathXL Homework.

7. Relate these problems to the project we are currently working on.

8. Go over some of the project with students, explaining how to use quadratics in trajectory, business models, and volume of boxes.

Closure

9. With five minutes left in class, provide closure by having students reflect in their notebooks what it is that we did today. As students are writing, help by providing a brief summary of the things we learned today. Reviewing solving quadratics using completing the square, factoring, inverse operations, and the quadratic formula.