Algebra II

Date:

Items Needed: Student Journal, Dynamic Classroom-Smart Document, Practice Worksheet Packets

Objective: The students will be able to solve quadratic equations by graphing and algebraically.

PA Common Core: HSA-SSE.A.2, HSA-REI.B.4b, HSF-IF.C.8a

Lesson:

- Pick a few of the problems from the slide and have the students see if they can remember how to use their calculator to find the solution to the equation.
- Using the next slide, also as a review, see if students can remember how to find the vertex and axis of symmetry with equations in standard form.
- Ask the "Essential Question."

- Working out of the student journals, p. 45, have the students work together to match the equation with the provided graphs.
- Using the graphs of the previous exercise, have the students work together to determine any solutions to the equations that there may be. Remember, any solutions are located at the points where the graph crosses the x-axis.
- Discuss the different ways to find solutions to quadratic equations.

- Graph one of the two equations on the next slide together and determine where it crosses the x-axis.
- Have the students graph one of the equations from the next slide and let them determine where it crosses the x-axis.

- Solve the 3 equations on the next slide showing the effect of square rooting both sides of the equation.
- Have the students do the same for the equations on the next slide.
- Talk about the zero-product property.
- Do the next two slides together.
- Have students do a couple of problems from the next slide.

- Look at the dropping the egg problem.

Assignment: Have students do 3, 5, 8, p. 99.
Have students do 13, 15, 17, 19, 23, 24, p. 99.
Have students do 47, 49, 51, 53, p. 100.
Have students do 39, 41, 43, 44, p. 100.

Enrichment:

Evaluation: (Could be from any one/several of the following)
  Responses from classroom questions
  Classroom sample problems
  Homework responses
  Calculator solutions
  End of the section exam

Accommodations:
  Affirmation of understanding for class work and homework.
  Homework assignments put on the sheet on the cabinet adjustments made when
  necessary.
  Steps broken into smaller segments.