Unit 8: Quadratics

Lesson 4 : Solving Quadratics by the Quadratic formula

Objectives:

* I can simplify radicals.
* I can use the quadratic formula to solve quadratics algebraically

Agenda:

* Quiz
* Warm up
* Video
* Practice and application

Focus Questions:

* How can simplify radicals using perfect squares?
* When can we use the quadratic formula to solve quadratics?

Vocabulary:

* Radicals, The Quadratic Formula

Homework: HW 8-3

Web Support:

<https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/quadratic-formula-1>

<https://www.khanacademy.org/math/algebra/quadratics/solving-quadratics-using-the-quadratic-formula/v/quadratic-formula-2>

**Warm Up: Solve Graphically: Find the axis of symmetry algebraically.**

3) Solve by completing the square for number 2.

4. The flow of oil in a pipe. In gallons per hour, can be modeled using the function .

(a) Using your calculator, Sketch the function on the axes provided.

(b) Find to the nearest tenth of an hour, the time when the flow stops. Show your work

**Notes: Solve algebraically by the quadratic Formula**:

where a, b, and c are real numbers in the quadratic standard form

3. 4.

15. 16.

17. 18.

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Homework 8-4: quadratic formula>**

1. In the following equationwhat are the values of a, b, and c?

2. In the equation what are the values of a, b, and c?

**Simplify the following Radicals:**

 3. 4. 5.

6. 7.

**Solve the following quadratics by the Quadratic formula and check your answers graphically.**

8)  9)

10) 11)