

Lesson 4.2.4: Find the Best Method

Targets:

1. I understand which method is most appropriate to solve a quadratic equation.

Warm Up:

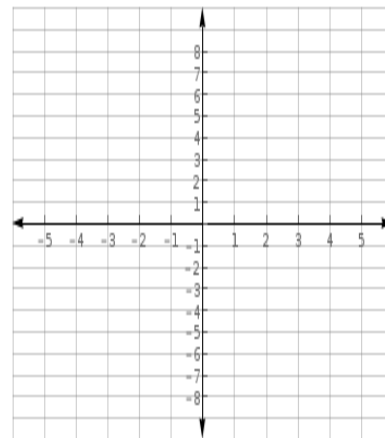
In Unit 4 we have learned a number of different methods to solve quadratic equations. Solve each of the following equations using the method listed.

1. Solve using square roots: $9x^2 - 18 = 81$

2. Solve by factoring using the difference of squares: $x^2 - 7 = 2$

3. Solve by factoring: $2x^2 - 2x - 6 = 6$

4. Solve by graphing: $x^2 - x = 6$



5. Solve using the quadratic formula: $5x^2 + 9x = -4$

Practice 1

Think back to the warm up problems.

1. What was the easiest problem to solve? Why?
2. What is your favorite method to use?
3. Does every method work for every situation? Give examples.

Practice 2

Solve these quadratic equations, using a different method for each:

1. Method:

$$2x^2 + 5x - 3 = 0$$

2. Method:

$$x^2 + 3x - 5 = 0$$

3. Method:

$$\frac{1}{2}x^2 - x - 4 = 0$$

Exit Ticket

Determine which methods would be appropriate to solve each equation. Circle all that apply. Then solve the equation using the method of your choosing.

1. $9x^2 - 10 = 71$
 - a. Square roots
 - b. Difference of Squares
 - c. Factoring
 - d. Graphing
 - e. Quadratic Formula
2. $2x^2 + 7x - 15 = 0$
 - a. Square roots
 - b. Difference of Squares
 - c. Factoring
 - d. Graphing
 - e. Quadratic Formula