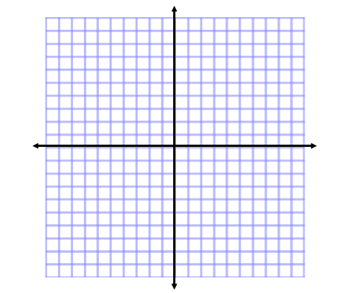
**Zeroes of Quadratic Functions**

Name:

Solving Quadratics Functions Day 1

Students can:

* Identify zeroes of a factored, quadratic polynomial.
* Use the given zeroes to **sketch** a graph of a quadratic function.

**WARM-UP:**

Factor the trinomial. Check your answer.

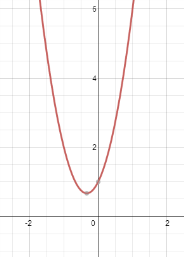
**MINI LESSON:**

**Quadratic Function:** function with a \_\_\_\_\_\_\_\_\_\_ term, linear term, and constant term.

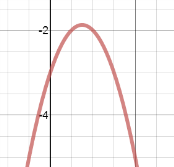
Examples:

**Graph of a quadratic function:** the graph of a quadratic function will be a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(U-shape)

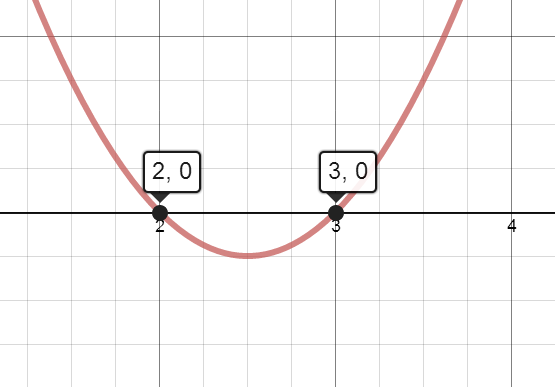
If the coefficient for the quadratic term is positive, the parabola will open \_\_\_\_\_.

 Example:

If the coefficient for the quadratic term is negative , the parabola will open \_\_\_\_\_\_\_.

 Example:

**Zero**: \_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a quadratic function. (where function intersects \_\_-\_\_\_\_\_\_)



What are the x-intercepts for the given quadratic graph?

What is true about the y-value for any x-intercept?

**Steps to solve for x-intercepts:**

1. Factor the quadratic polynomial.

2. Substitute zero for \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. Solve for x using the zero product property.

**Zero Product Property:**

For any real numbers a and b, if ab=0, then either \_\_\_\_\_ or \_\_\_\_\_\_, or both a and b equal \_\_\_.

**Solve for the zeroes for the following quadratic functions using the zero product property.**

1. 2.

**Solve for the x-intercepts for the following quadratic functions. Then sketch the graph.**

3. 4.

**WORKSHOP:**

**Solve for the zeroes using the zero product property.**

1. 2.

**Solve for the x-intercepts for the following quadratic functions. Then sketch the graph.**

3. 4.