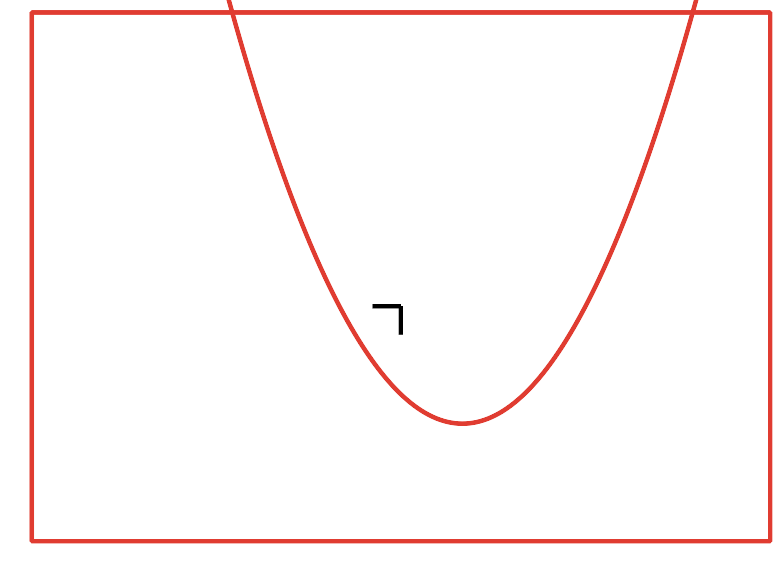
### Lesson 10 Practice Problems

1. A quadratic function is defined by .
   1. Without graphing, identify the -intercepts of the graph of . Explain how you know.
   2. Expand and use the expanded form to identify the -intercept of the graph of .
2. What are the -intercepts of the graph of the function defined by ?
   1. and
   2. and
   3. and
   4. and
3. Here is a graph that represents a quadratic function.

* Which expression could define this function?
* 
  1. What is the -intercept of the graph of the equation ?
  2. An equivalent way to write this equation is . What are the -intercepts of this equation’s graph?

1. Noah said that if we graph , the -intercepts will be at and . Explain how you can determine, without graphing, whether Noah is correct.
2. A company sells a video game. If the price of the game in dollars is  the company estimates that it will sell games.

* Which expression represents the revenue in dollars from selling games if the game is priced at dollars?
* (From Unit 6, Lesson 7.)

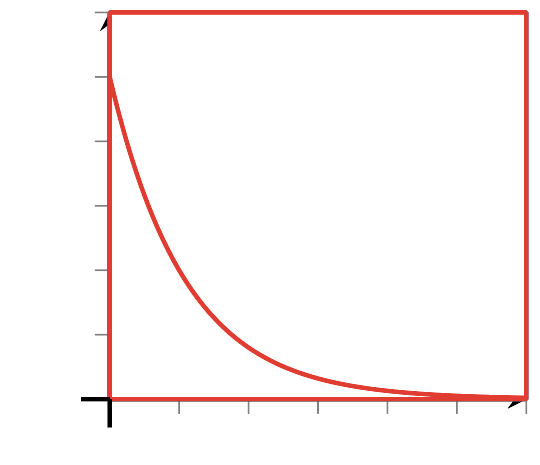
1. Write each quadratic expression in standard form. Draw a diagram if needed.

* (From Unit 6, Lesson 9.)

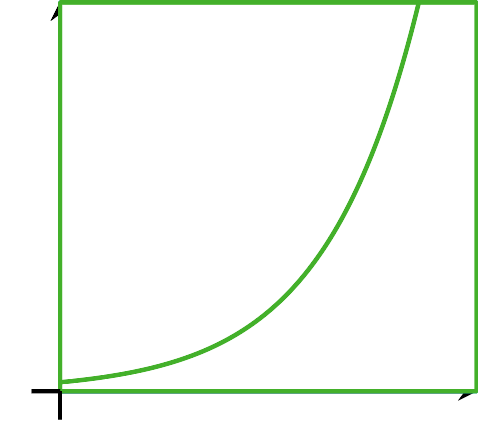
1. Consider the expression .
   1. Is the expression equivalent to ? Explain how you know.
   2. Is the expression in standard form? Explain how you know.

* (From Unit 6, Lesson 9.)

1. Here are graphs of the functions and given by and .

* Which graph corresponds to and which graph corresponds to ? Explain how you know.
* 
* (From Unit 5, Lesson 12.)

1. Here are graphs of two functions and .

* An equation defining is .
* Which of these could be an equation defining the function ?
* 
* (From Unit 5, Lesson 13.)



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