Determining the Domain and Range for Quadratic Functions: Restricted Domain/Range

Name:

Date:

Vocabulary Review:
In your own words, define each of the following vocabulary terms.

- Function

- Quadratic Function

- Quadrants

- Domain

- Range

Apply New Learning:

1. How do you know when the domain or range of a function should have restrictions?

2. What makes a domain or range reasonable?

A rock is dropped from a height of 50 feet. The formula $h = -16t^2 + 50$ describes the height h in feet of the rock t seconds after it is dropped.

3. Use a graphing calculator to graph the function and determine the domain and range of the function without restrictions.

4. Analyze whether or not the answer to question #3 makes sense for this specific problem situation. Explain why or why not.

5. If the domain and range do not make sense, determine the domain and range with restrictions.

6. How many seconds will it take the rock to fall to the ground?