Name Date Class

Chapter 8: Quadratic Functions Review

1. What is the quadratic formula:

Matching.

2. If then there are \_\_\_\_\_\_\_\_\_\_\_ solutions.

3. If then there are \_\_\_\_\_\_\_\_\_\_\_ solutions.

4. If then there are \_\_\_\_\_\_\_\_\_\_\_ solutions.

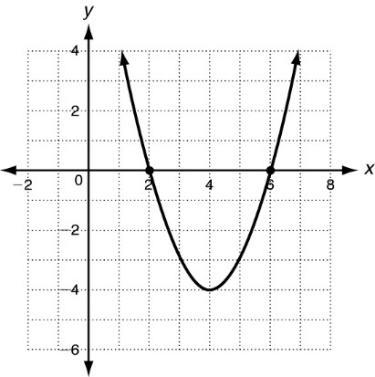
Simplify the radicals.

**Identify the quadratic functions.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | -2 | -1 | 0 | 1 | 2 |
| y | -2 | 0 | 4 | 9 | 15 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | -2 | -1 | 0 | 1 | 2 |
| y | 39 | 18 | 3 | -6 | -9 |

**Identify the axis of symmetry, vertex, zeros, domain and range of the following graph.**



Axis of symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

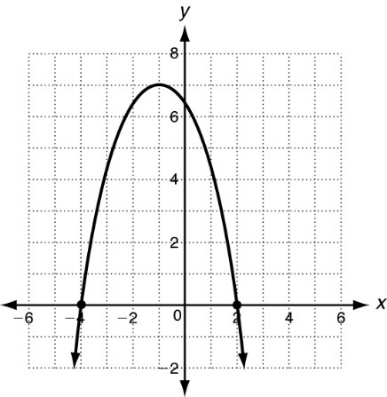
Vertex: \_\_\_\_\_\_\_\_

Zeros: \_\_\_\_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_

**Identify the axis of symmetry, vertex, zeros, y-intercept, domain and range of the following graph.**



Axis of symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_

Zeros: \_\_\_\_\_\_\_\_\_

y-intercept: \_\_\_\_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_

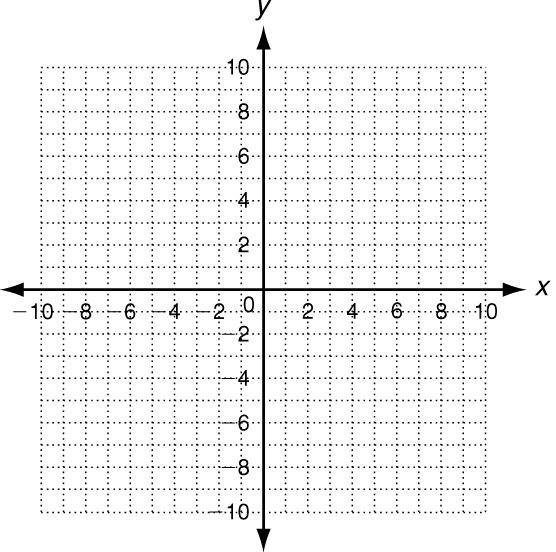
Range: \_\_\_\_\_\_\_\_\_\_\_

**Compare the graph of the following graph with the graph of f (x) = x 2.**

**Solve the following equations.**

**Solve using the quadratic formula. You must show your work to earn full credit.**

**Find the number of real solutions of the following equations using the discriminant.**

**Graph the following function. Then identify the following: axis of symmetry, vertex, minimum or maximum, minimum or maximum value, zeros, y-intercept, domain, and range of the following function:**

Axis of Symmetry:

Vertex: \_\_\_\_\_\_\_\_\_

Circle One: Minimum or Maximum

Minimum or Maximum Value: \_\_\_\_\_

Zeros: , \_\_\_\_\_

y-intercept: \_\_\_\_\_\_

Domain:\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_