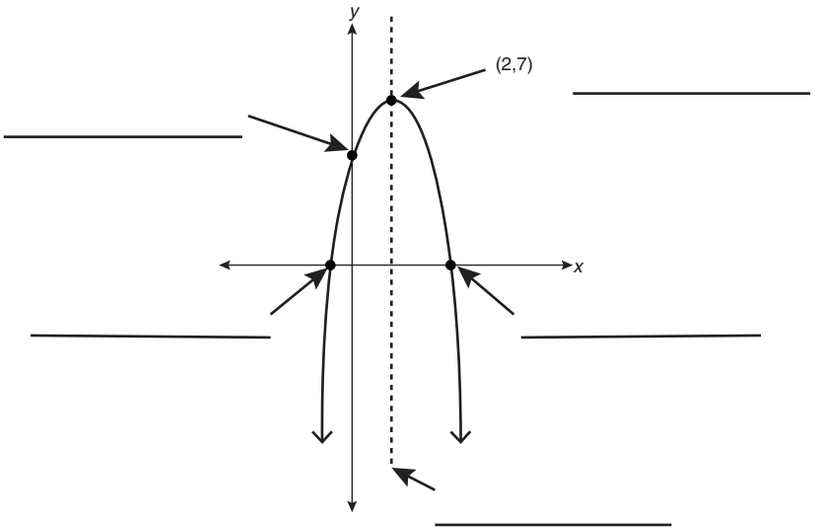
Practice Run

1. a. Label the diagram with the correct terms.



b. Does the graph of the quadratic function have a maximum or minimum? What is the *y*-value at that point? _____

c. What is the equation of the axis of symmetry? _____

d. What are the domain and range of the quadratic function? _____

_____

2. Explain what the *x*-intercepts represent for a quadratic function.

_____

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3. List the types of zeros a quadratic function can have.

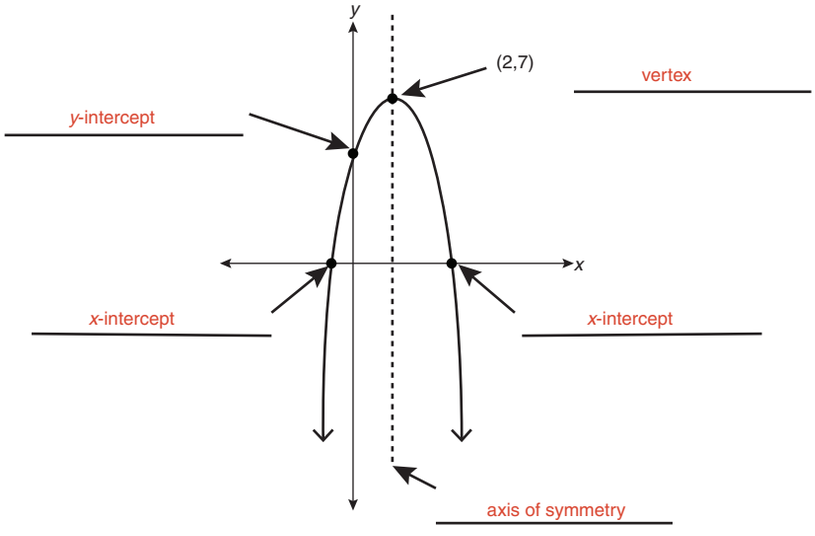
_____

_____

_____

Compare your answers.

1. a. Label the diagram with the correct terms.



b. Does the graph of the quadratic function have a maximum or minimum? What is the y-value at that point?

The function has a maximum value of $y = 7$.

c. What is equation of the axis of symmetry?

The equation of the axis of symmetry corresponds to the x-coordinate of the vertex, $x = 2$.

d. What are the domain and range of the quadratic function?

Domain: $\{x \mid x \in \mathrm{R}\}$

Range: $\{y \mid y \leq 7, y \in \mathrm{R}\}$

2. Explain what the x-intercepts represent for a quadratic function.

The x-intercepts of the graph of a quadratic function correspond to the zeros of the quadratic function.

3. List the types of zeros a quadratic function can have.

A quadratic function can have no real zeros, one real zero, or two real zeros.