

Name : \_\_\_\_\_

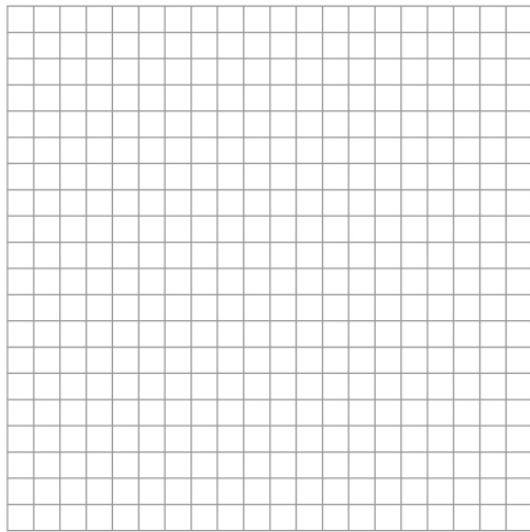
Score : \_\_\_\_\_ Date : \_\_\_\_\_

# Graphing Quadratics

## Vertex Form

Sketch the graph of each function and answer the following questions.

①  $y = -x^2$



Vertex:

Opens Up or Down:

Domain:

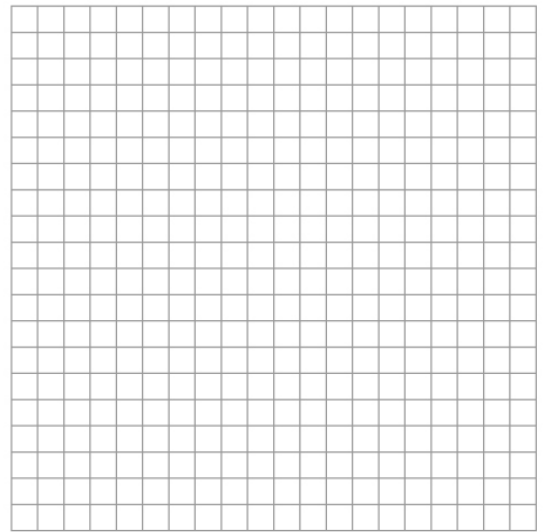
Range:

Axis of Symmetry:

x-intercept:

y-intercept:

②  $y = (x - 3)^2$



Vertex:

Opens Up or Down:

Domain:

Range:

Axis of Symmetry:

x-intercept:

y-intercept:

Name : \_\_\_\_\_

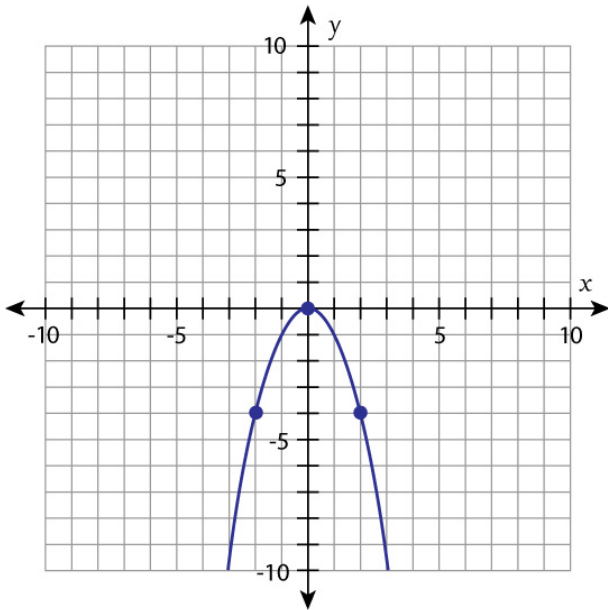
Score : \_\_\_\_\_ Date : \_\_\_\_\_

# Graphing Quadratics

## Vertex Form

### Answers

①  $y = -x^2$



Vertex:  $(0, 0)$

Opens Up or Down: **Down**

Domain:

[Solution:  $-\infty < x < \infty$   
Interval Notation:  $(-\infty, \infty)$ ]

Range:

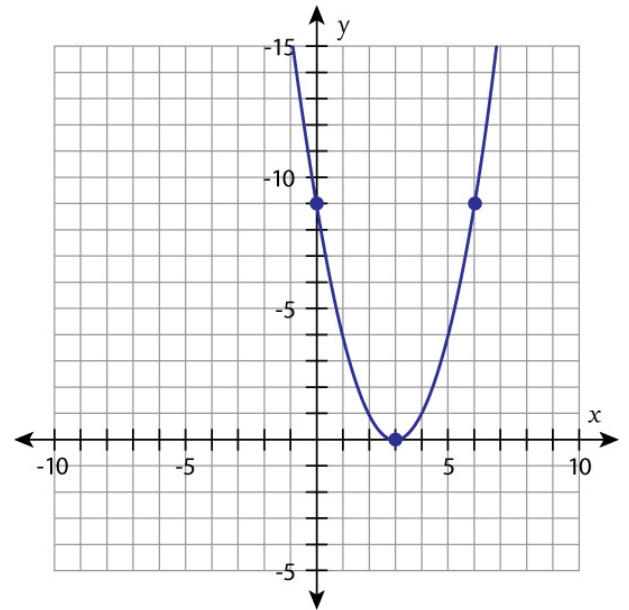
[Solution:  $f(x) \leq 0$   
Interval Notation:  $(-\infty, 0]$ ]

Axis of Symmetry:  $x = 0$

x-intercept:  $(0, 0)$

y-intercept:  $(0, 0)$

②  $y = (x - 3)^2$



Vertex:  $(3, 0)$

Opens Up or Down: **Up**

Domain:

[Solution:  $-\infty < x < \infty$   
Interval Notation:  $(-\infty, \infty)$ ]

Range:

[Solution:  $f(x) \geq 0$   
Interval Notation:  $[0, \infty)$ ]

Axis of Symmetry:  $x = 3$

x-intercept:  $(3, 0)$

y-intercept:  $(0, 9)$