

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

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

Teacher : \_\_\_\_\_

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

## Properties of Parabolas

Identify the following.

1)  $x = -2y^2 - 20y - 32$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:

4)  $y = 2x^2 + 24x + 70$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:

2)  $x = -2y^2 + 4y + 70$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:

5)  $y = (x + 6)^2 + 2$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:

3)  $x = 2(y + 1)^2 - 8$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:

6)  $y = -2x^2 - 24x - 70$

Min/Max value:

Latus:

y-int:

x-int:

Vertex:

Axis of Symmetry:

Opens:



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

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## Properties of Parabolas

Identify the following.

1)  $x = -2y^2 - 20y - 32$

Max value: 18

Latus Rectum:  $\frac{1}{2}$  units

y-int: -2 , -8

x-int: -32

Vertex = (18 , -5)

Axis of Symmetry:  $y = -5$

Opens: Left

4)  $y = 2x^2 + 24x + 70$

Min value: -2

Latus Rectum:  $\frac{1}{2}$  units

y-int: 70

x-int: -7 , -5

Vertex = (-6 , -2)

Axis of Symmetry:  $x = -6$

Opens: Up

2)  $x = -2y^2 + 4y + 70$

Max value: 72

Latus Rectum:  $\frac{1}{2}$  units

y-int: 7 , -5

x-int: 70

Vertex = (72 , 1)

Axis of Symmetry:  $y = 1$

Opens: Left

5)  $y = (x + 6)^2 + 2$

Min value: 2

Latus Rectum: 1 unit

y-int: 38

x-int: None

Vertex = (-6 , 2)

Axis of Symmetry:  $x = -6$

Opens: Up

3)  $x = 2(y + 1)^2 - 8$

Min value: -8

Latus Rectum:  $\frac{1}{2}$  units

y-int: -3 , 1

x-int: -6

Vertex = (-8 , -1)

Axis of Symmetry:  $y = -1$

Opens: Right

6)  $y = -2x^2 - 24x - 70$

Max value: 2

Latus Rectum:  $\frac{1}{2}$  units

y-int: -70

x-int: -5 , -7

Vertex = (-6 , 2)

Axis of Symmetry:  $x = -6$

Opens: Down

