

Worksheet #1 Lesson 2.2**Identify the Axis of Symmetry and vertex of each parabola. (Example #1)**

1) $y = -(x - 4)^2 - 1$

2) $y = \frac{1}{4}(x - 2)^2 + 3$

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

4) $y = -2(x - 4)^2$

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

6) $y = \frac{1}{3}x^2 - 2$

Find the vertex and Axis of Symmetry of each parabola in standard form. (Example #2)

7) $y = x^2 + 6x + 10$ a = ____ b = ____ c = ____

8) $y = x^2 + 3$ a = ____ b = ____ c = ____

AOS: ____ Vertex: _____

AOS: ____ Vertex: _____

9) $y = x^2 - 2x - 2$ a = ____ b = ____ c = ____

10) $y = -3x^2 - 18x - 31$ a = ____ b = ____ c = ____

AOS: ____ Vertex: _____

AOS: ____ Vertex: _____

Find the minimum or maximum value of each parabola. (Example #3)

11) $y = -x^2 + 10x - 26$ a = ____ b = ____ c = ____

12) $y = 3x^2 - 12x + 6$ a = ____ b = ____ c = ____

min/max: _____

min/max: _____

13) $y = x^2 + 2x$ a = ____ b = ____ c = ____

14) $y = -2x^2 - 20x - 56$ a = ____ b = ____ c = ____

min/max: _____

min/max: _____

Find the y - intercept of each parabola. (Example #4)

15) $y = -x^2 + 8x - 20$

16) $y = x^2 + 4x + 7$

17) $y = -x^2 - 12x - 39$

18) $y = 2x^2 - 12x + 18$