**Graphing Quadratic Function**

|  |
| --- |
| $$y =ax^{2}+bx+c$$ |

How do I know which way the parabola opens? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The formula to find the vertex and axis of symmetry is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The solutions to a Quadratic function are also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

Hits the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The y-intercept is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Example 1:** Graph f(x) = 2(x – 4)(x – 6)



Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y-Int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Example 2:** Graph f(x) = – (x + 1)(x – 5)



Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y-Int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Graph f(x) = – (x + 2)(x – 4)

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Graph f(x) =2 (x + 3)(x – 1)



Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y-int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_





1. Graph f(x) = – (x +4)(x – 2)

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Roots: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Y-Int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Graph f(x) = – ½ (x + 2)(x – 4)

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Roots: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Y-Int: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

