Algebra 1 – Graphing Quadratics

Name: _____
Date: _____   Hour: ___

When graphing a quadratic, we will graph 4 things –

- 2 X intercepts
- 1 Y intercept
- The vertex – what is that?

    ○ _____

    _____

For any y-intercept, the x value is equal to _____.

For any x-intercept, the y value is equal to _____.

To find the vertex, we will first find the x-value and then substitute to find the y-value.

We can find the x-value of the vertex 2 different ways:

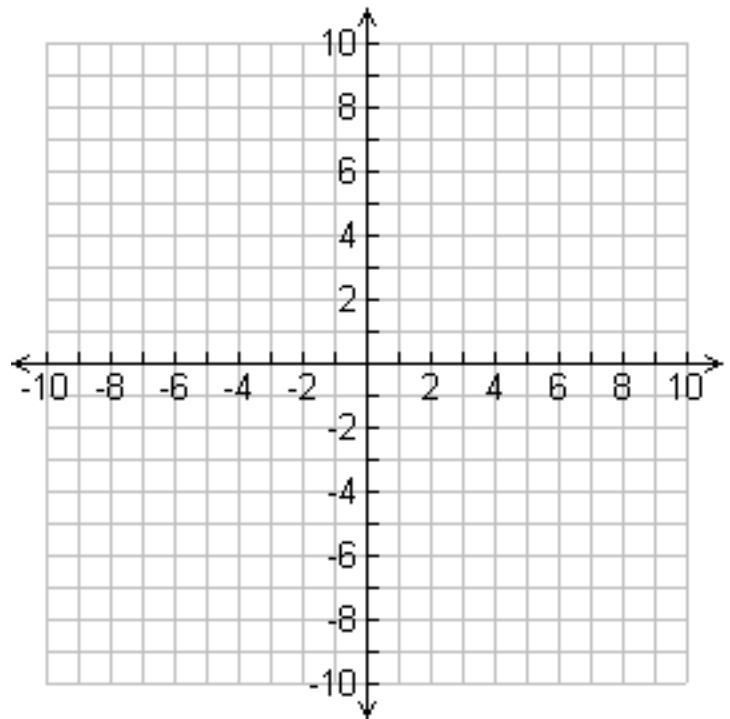$$x = \frac{-b}{2a}$$ OR the x value is halfway between the two x intercepts

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Graph the quadratic: $y = (x-2)(x+4)$

x-intercept: _____

x-intercept: _____

y-intercept: _____

vertex: _____

Graph the quadratic: $y = (x - 5)(x + 1)$

x-intercept: _____

x-intercept: _____

y-intercept: _____

vertex: _____