

QUADRATIC EQUATIONS:

	Standard Form	Vertex Form
Equation	$y = ax^2 + bx + c$	$y = a(x - h)^2 + k$
Maximum or Minimum?	$a > 0 = \text{Minimum}$ $a < 0 = \text{Maximum}$	
x-intercepts?	<ol style="list-style-type: none"> 1. Substitute $y = 0$ 2. Factor, Complete the Square, or use the Quadratic Formula 3. Solve for x 	<ol style="list-style-type: none"> 1. Substitute $y = 0$ 2. Solve for x
y-intercept?	c-value	<ol style="list-style-type: none"> 1. Substitute $x = 0$ 2. Solve for y
Vertex?	<ol style="list-style-type: none"> 1. $x = -\frac{b}{2a}$ 2. Substitute that x-value into the original equation 3. Solve for y 	(h, k)
Axis of Symmetry?	$x = -\frac{b}{2a}$	$x = h$
Domain?	(- infinity, + infinity) OR All Real Numbers	
Range?	If there is a Minimum: [y-value of vertex, + infinity) OR $y \geq$ y-value of vertex If there is a Maximum: (- infinity, y-value of vertex] OR $y \leq$ y-value of vertex	