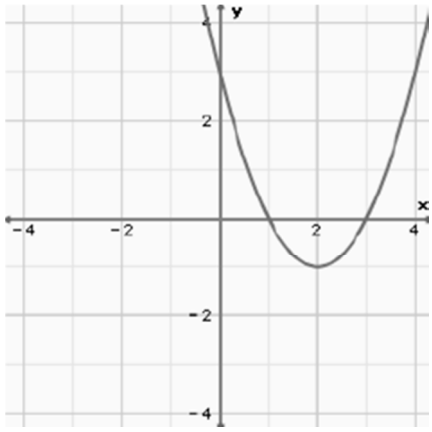
DAY 2 – Changing Quadratic Relations: The Value of 'a'

1. State the vertex and the maximum or minimum value for each parabola.

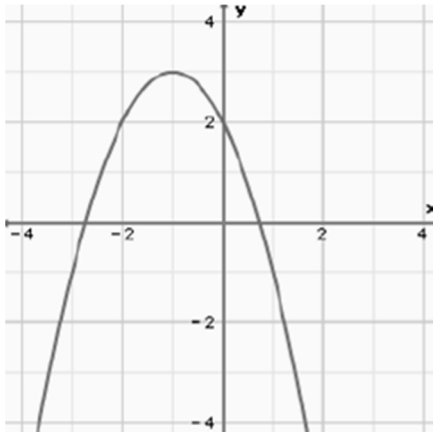
a.



Vertex: _____

max or *min*?: _____

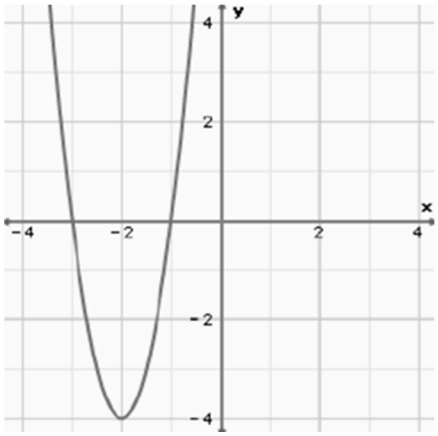
b.



Vertex: _____

Max or Min?: _____

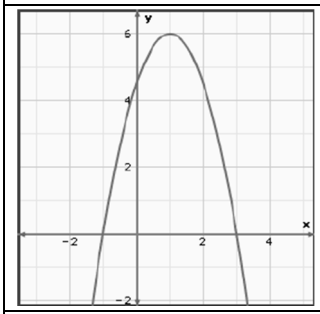
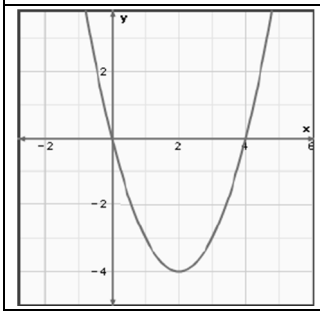
c.



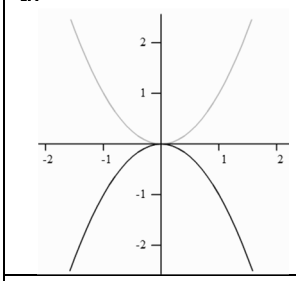
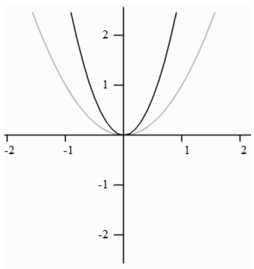
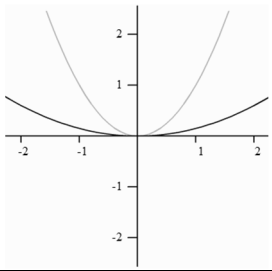
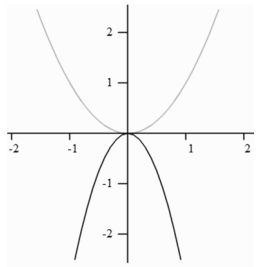
Vertex: _____

Max or Min?: _____

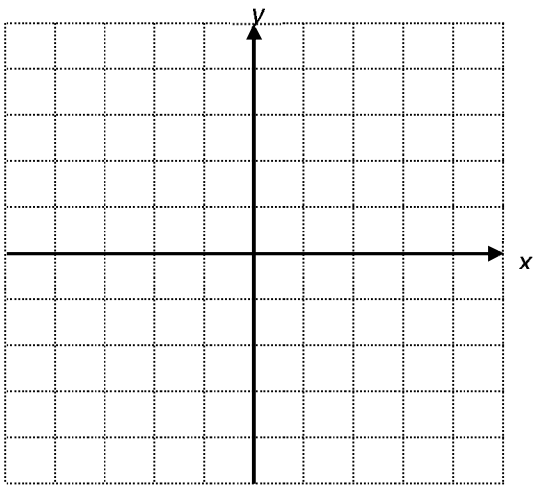
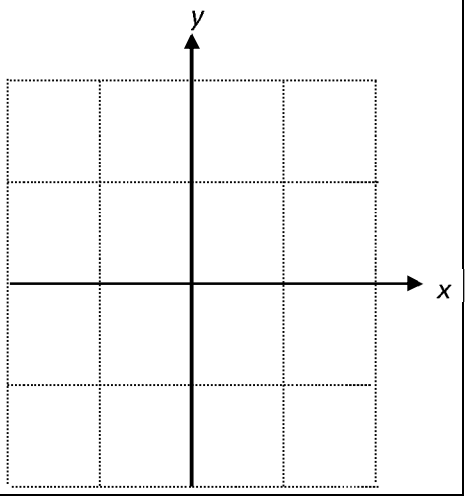
2. State the key features of each graph.

	zeros	*y*-intercept	vertex	axis of symmetry	optimal value
					
					

3. For each of the following, state how the value of *a* is affecting the basic parabola (*compression, stretch and/or reflection*). The basic parabola, $y = x^2$, is shown with a dotted line.

a.	b.	c.	d.
			

4. State the transformations and graph each of the following parabolas.

	a. $y = 2x^2$	b. $y = -1/3x^2$
(I) TRANSFORMATIONS		
(II) GRAPH		

5. For each set of quadratics, circle the one that is wider

a. $y = 0.2x^2$ $y = 5x^2$

b. $y = 3x^2$ $y = -0.4x^2$

c. $y = 5x^2$ $y = 2x^2$

d. $y = 0.1x^2$ $y = 0.25x^2$

e. $y = -0.2x^2$ $y = 0.03x^2$

f. $y = 0.9x^2$ $y = -0.4x^2$