Math 20-2 **Name: _____**

Quadratic Function Properties: Part One

Given the graph of a quadratic function I can:

- find the x – intercepts
- find the y – intercept
- find the vertex
- write the equation for the axis of symmetry
- plot and identify other points on the graph using the property of symmetry
- write the domain and range

Given the equation of a quadratic function I can:

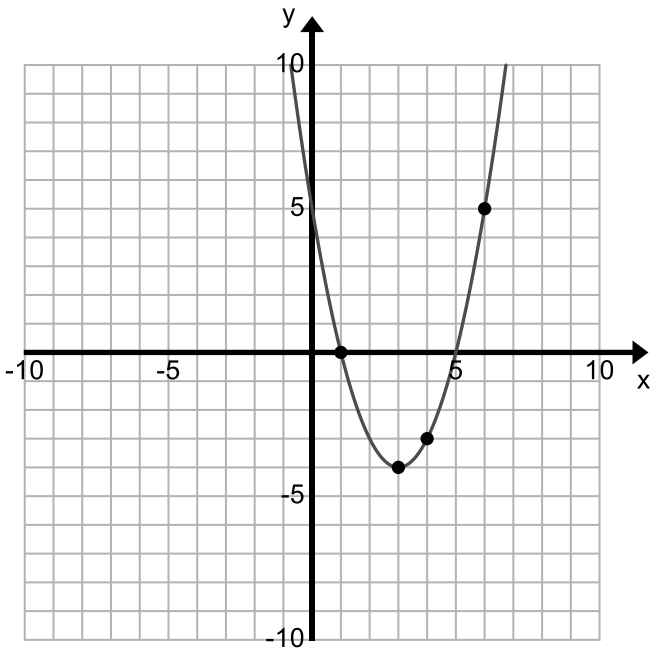
- find points to plot using a mapping diagram and/or a table of values
- find the x – intercepts
- find the y – intercept
- find the vertex
- write the equation for the axis of symmetry
- write the domain and range

I can use the regression feature on my calculator to find the quadratic equation for a set of data.

I can solve problems using properties of quadratic functions

- find maximum or minimum values and interpret their meaning
- find zeros for functions and interpret their meaning
- find y-values knowing x- values (use the trace feature if necessary)
- find x-values knowing y-values (use the intersect feature if necessary)

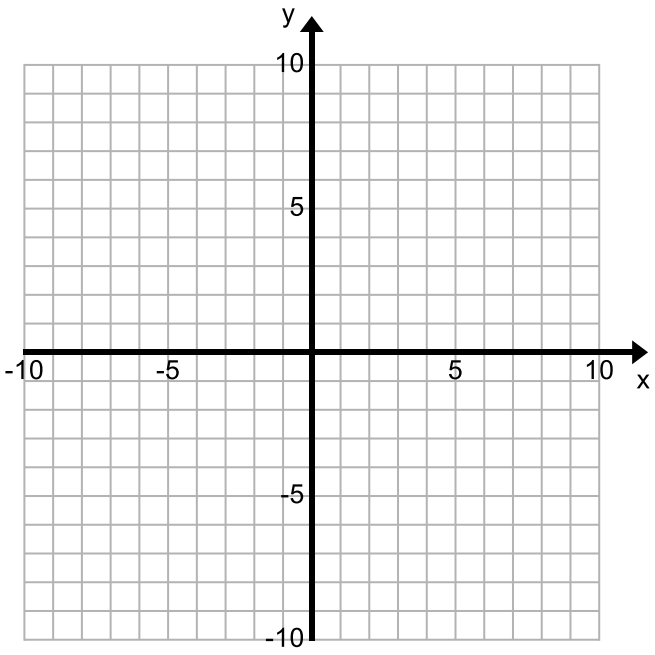
1. Given the graph of the function:
   - find the vertex
   - sketch in the axis of symmetry and write the equation for the axis of symmetry
   - plot and identify **3** other points on the graph using the property of symmetry
   - identify the x – intercepts (on the graph, coordinates)
   - identify the y – intercept (on the graph, coordinates)
   - write the domain and range



2. Given the equation of the quadratic function:
   - find points to plot using a mapping diagram and/or a table of values
   - identify the x – intercepts (on the graph, coordinates)
   - identify the y – intercept (on the graph, coordinates)
   - identify the vertex (on the graph, coordinates)
   - write the equation for the axis of symmetry
   - write the domain and range

$$y = x^2 + 4x - 5$$

X	Y
-6	
-5	
-4	
-3	
-2	
-1	
0	
1	
2	



3. Find the quadratic equation and draw the graph for the following:

X	***Y***
-2	0
0	-8
1	-9
4	0

$y = ax^2 + bx + c$

$a =$

$b =$

$c =$