Name:_____ Date:_____Period:_____

NOTES: GRAPHING
Quadratic Functions

Steps to Graph a Quadratic Function

1. Use _____ to find the _____.

2. Next, find the _____.

3. Use the vertex as the middle point in your table. Find two points above and below (or left and right).

4. _____ points and connect to make a _____.

Examples

1. $f(x) = x^2$

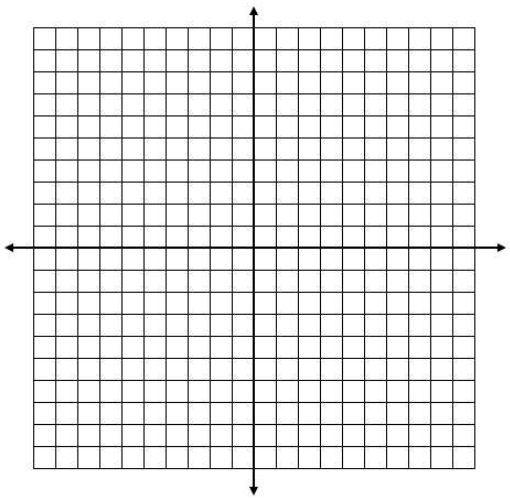
a= ____ **b=** ____ **c=** ____

Axis of Symmetry: _____

Vertex: _____

x	f(x)

Graph:



Quadratic Parent Function!

Domain: _____

Range: _____

Examples continued

1. $f(x) = x^2 - 4$

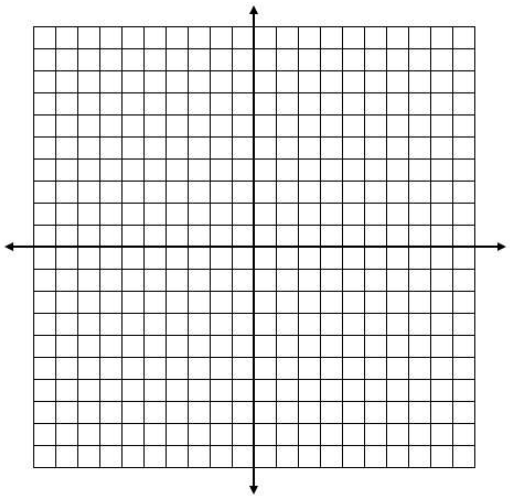
a= _____ **b=** _____ **c=** _____

Axis of Symmetry: _____

Vertex: _____

x	f(x)

Graph:



Domain: _____

Range: _____

3. $f(x) = -x^2 + 2x + 3$

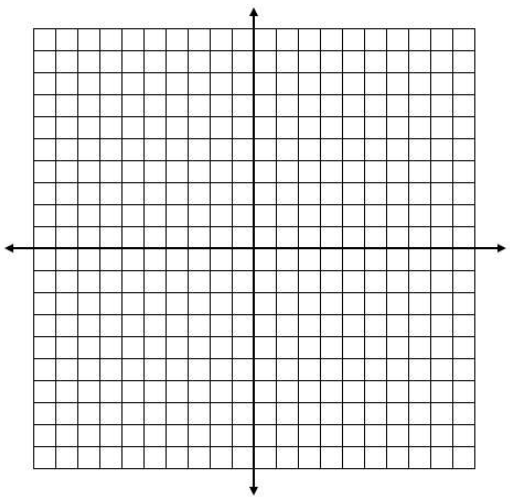
a= _____ **b=** _____ **c=** _____

Axis of Symmetry: _____

Vertex: _____

x	f(x)

Graph:



Domain: _____

Range: _____

Name:_____ Date:_____Period:_____

A.___ GRAPHING
Quadratic Functions

Determine the vertex and axis of symmetry for each quadratic function. Then create a table of values and graph. State the domain and range.

1. $f(x) = 3x^2 + 12x + 2$

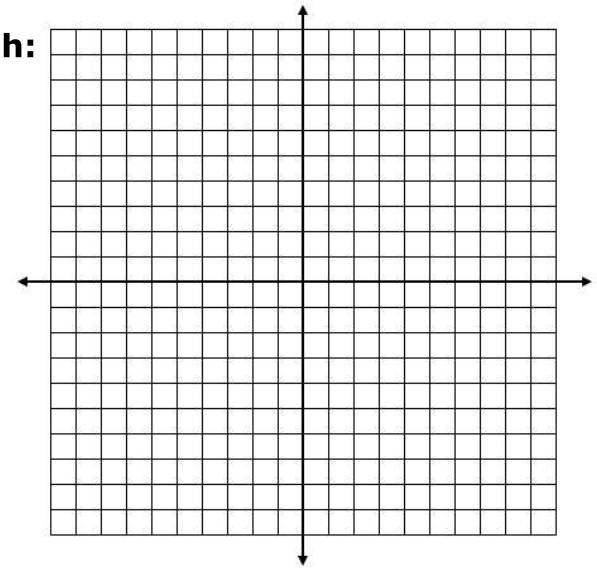
a= ____ **b=** ____ **c=** ____

Axis of Symmetry: _____

Vertex: _____

x	f(x)

Graph:



Domain: _____ Range: _____

2. $f(x) = -x^2 - 2x + 1$

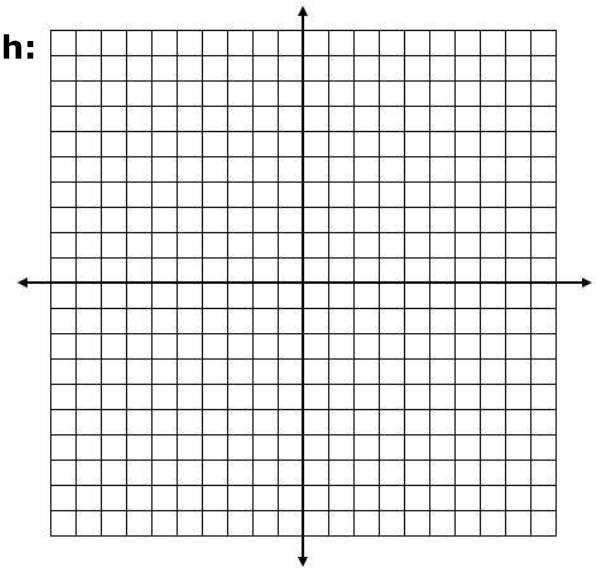
a= ____ **b=** ____ **c=** ____

Axis of Symmetry: _____

Vertex: _____

x	f(x)

Graph:



Domain: _____ Range: _____

Graphing Quadratic Functions Continued

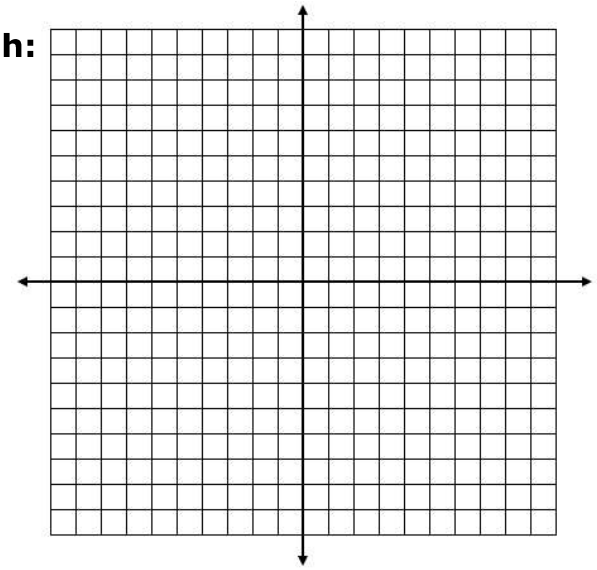
3. $f(x) = 2x^2 - 4$

a= _____ **b=** _____ **c=** _____

Axis of Symmetry: _____

Vertex: _____

Graph:



x	f(x)

Domain: _____ Range: _____

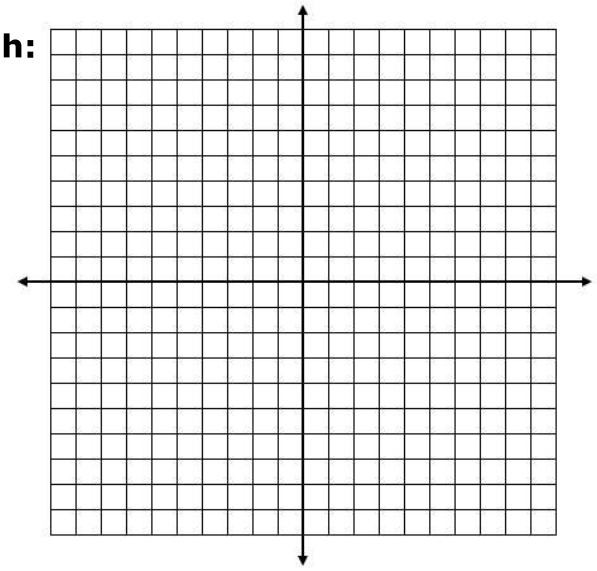
4. $f(x) = -x^2 - 8x - 12$

a= _____ **b=** _____ **c=** _____

Axis of Symmetry: _____

Vertex: _____

Graph:



x	f(x)

Domain: _____ Range: _____