Graphing Quadratic Equations

$y = ax^2 + bx + c$

Steps to graph a quadratic equation:

Step 1: *Find the axis of symmetry.*
Step 2: *Find the vertex.*
Step 3: *Fill in a table of values using your calculator.*
Step 4: *Graph!*

Practice!

Graph each quadratic equation.

1. $y = x^2$

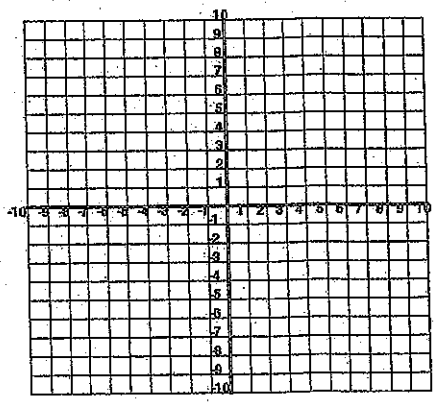
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



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

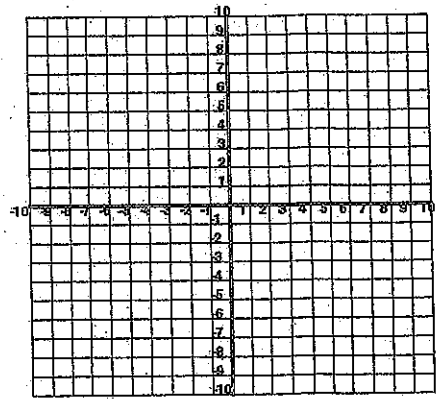
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



3. $y = -x^2 - 8x - 17$

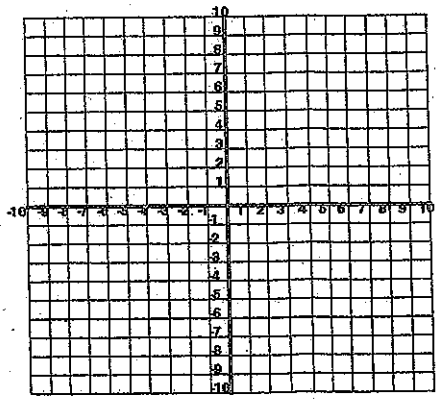
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



4. $y = -2x^2 + 4x + 1$

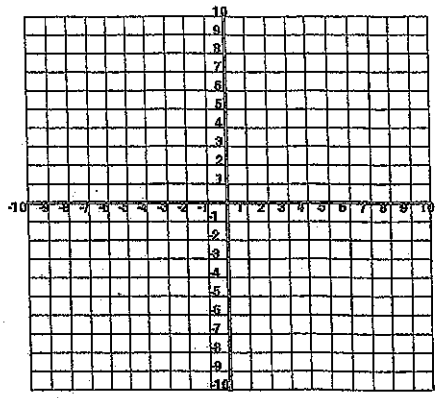
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



5. $y = x^2 - 6x + 13$

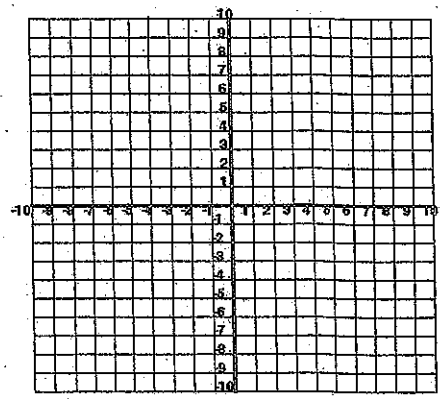
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



6. $y = -x^2 - 4$

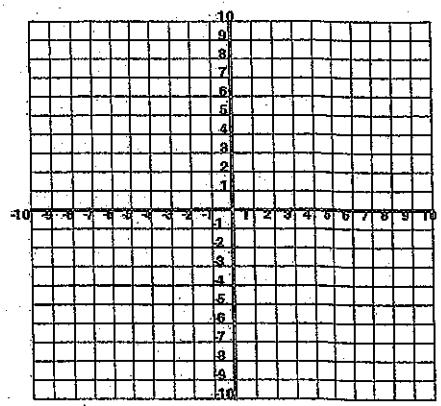
Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y



7. $y = 2x^2 + 8x$

Axis of Symmetry: _____

Vertex: _____

Domain: _____

Range: _____

x	y