Name: $\qquad$

## ** This is a 2-page document! **

Directions: Complete the following statements.

1. The standard form of a quadratic equation is $\qquad$ .
2. The curve formed by a quadratic equation is called a $\qquad$ .
3. The formula for the axis of symmetry is $\qquad$ .
4. If the vertex is the highest point on the graph, it is called a $\qquad$ .
5. If a vertex is the lowest point on a graph, it is called a $\qquad$ .
Directions: Find the axis of symmetry and vertex for the following quadratic equations. Then, sketch the parabola and label all parts.
6. $y=x^{2}+6 x+4$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$

## Sketch:

7. $y=-2 x^{2}+8 x-5$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$ Sketch:
8. $y=x^{2}-2 x$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$ Sketch:
9. $y=-x^{2}-8 x-9$

## Axis of Symmetry:

$\qquad$ Vertex: $\qquad$
Sketch:
10. $y=-5 x^{2}-20 x-26$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$ Sketch:
11. $y=x^{2}-4$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$
Sketch:
12. $y=-x^{2}+2 x-4$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$ Sketch:
13. $y=-3 x^{2}$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$ Sketch:
14. $y=2 x^{2}-12 x+10$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$
Sketch:
15. $y=x^{2}+10 x+24$

Axis of Symmetry: $\qquad$ Vertex: $\qquad$
Sketch:

