Algebra 2 Hwk #10 Sec 5-1 and 5-2 Notes Fall 2013

Use your book and the information in Sections 5-1 and 5-2

1. Write a Quadratic Function in Standard Form:

2. Given the Quadratic Function: $f(x) = 9x^2 - 4x + 8$

a. Identify the quadratic term:

b. Identify the linear term:

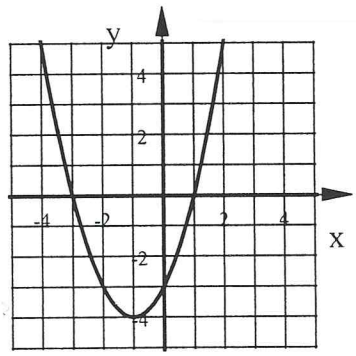
c. Identify the constant term:

3. What part of the equation for a Quadratic in Standard Form determines if a parabola opens up or down?

4. a. A parabola opens up if _____

b. A parabola opens down if _____

5. Use the parabola shown. Draw the Line of Symmetry (also known as the Axis of Symmetry).



a. State the coordinates of the vertex.

b. What kind of line is the Line of Symmetry?

c. Write the equation of the Line of Symmetry.

d. The Line of Symmetry always passes through what point?

e. How is the Line of Symmetry related to the x-coordinate of the vertex?

f. Is the vertex of this parabola a Maximum or a Minimum?

6. The vertex of a parabola is a Maximum if...

The vertex of a parabola is a Minimum if...

7. Since the y-intercept of any function is found by replacing x with zero, what will the y-intercept of every quadratic function in standard form turn out to be?

8. The Line of Symmetry of a parabola is $x = 1$. Given the points $(2,-9)$ and $(4,7)$ are on the parabola, use the Line of Symmetry to find two other points on this parabola.