Algebra   Name _____
Ch 10 - Quadratics Review   Period _____
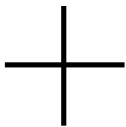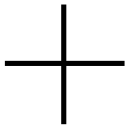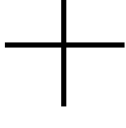   Show ALL work to earn full credit and label answers!!!
Graphing quadratic equations.

Complete the following table.

Equation	**Sketch** a simple graph (don't use a table...I just want an estimate)	Is the vertex of the graph a **minimum** or a **maximum**?	List the transformations "wider" "narrower" "shifts up" "shifts down" "reflected"
1. $y = \frac{1}{5}x^2 + 3$			
2. $y = -8x^2$			
3. $y = 4x^2 - 1$			
4. $y = -\frac{1}{2}x^2 + 7$			
5. $y = -x^2 - 2$			

6. Sketch the graph of a quadratic function that has NO REAL SOLUTIONS:
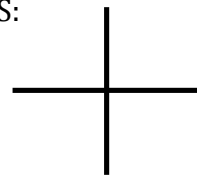
7. Sketch the graph of a quadratic function that has 2 solutions:
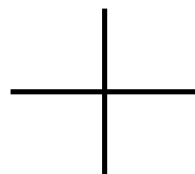
Graph the quadratic equations below.

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

Verex: _____

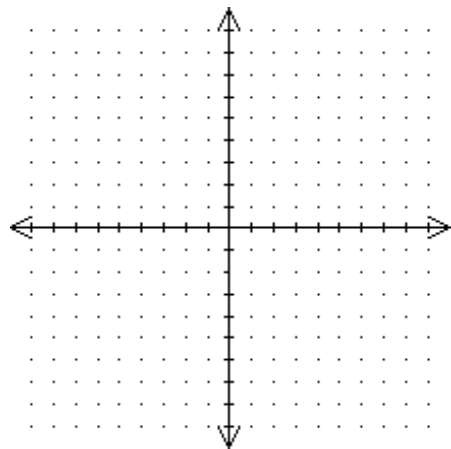Equation of the Axis of Symmetry: _____

X	Y
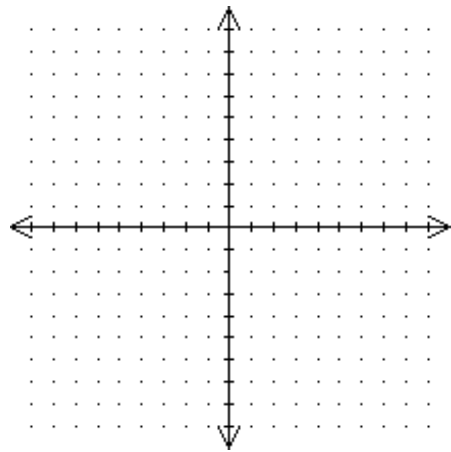
9. $y = -2x^2 + 4x + 6$

Verex: _____

Equation of the Axis of Symmetry: _____

X	Y

Solving quadratic equations.

Solve the quadratic equations, using the method of YOUR CHOICE!
Show ALL of your work! If you have a decimal, round to the <u>nearest hundredth</u>.
Write "NO SOLUTION" if there is no solution.

1. $x^2 = 49$

2. $3x^2 = 75$

3. $-2x^2 = 40$

4. $10 + 4x^2 = 34$

5. $-2x^2 + 22 = 4$

6. $x^2 - 2x - 24 = 0$

7. $x^2 - 7x = -12$

8. $3x^2 - 11x - 4 = 0$

9. $2x^2 + 4x - 7 = 0$ 10. $2x^2 + 2x - 40 = 0$

Use the FALLING OBJECT formula $h = -16t^2 + s$ **to solve the problem.**

11. A ball is dropped from a height of 1200 feet. Disregard air resistance. How long will the object take to hit the ground?

                                                                                    11. _____

12. Find the height of the ball, h, after 2 seconds (when t = 2).

                                                                                    12. _____
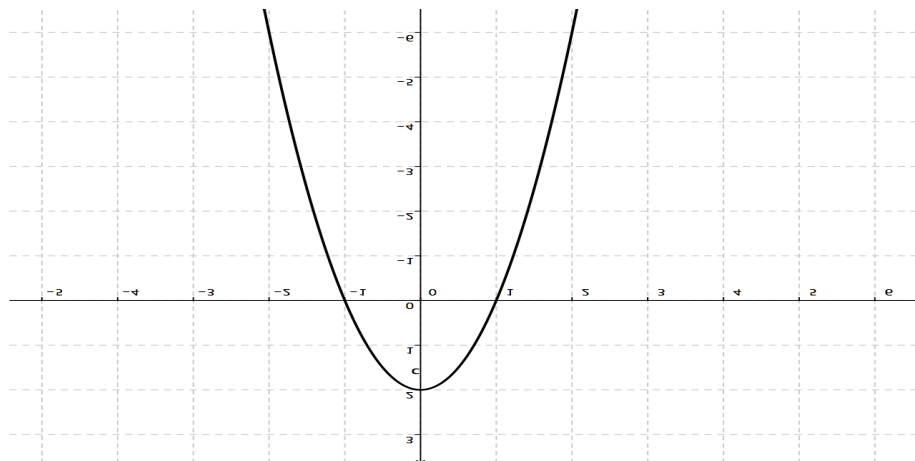
13. Use the graph below for #13.
Up or down? _____
Vertex = (,   )
Is the vertex a max or min? _____
Draw in the line of symmetry?
Circle the roots/zeros and then write them down (____,____) and (____,____)

Factoring Review for the ReTest of Chapter 9
Factor.

1. $x^3 - 11x^2 + 28x$ Multiple Choice. Circle your answer. SHOW WORK.

    A. $x(x - 7)(x - 4)$
    B. $x(x + 2)(x + 14)$
    C. $x(x + 7)(x + 4)$
    D. $x(x - 7)(x + 4)$

2. $2x^2 - 7x - 15$

3. $10x^2 - 7x + 1$

4. $3x^2 - 30x + 27$

5. $4x^7 + 20x^3$

6. $3x^2 + 13x + 4$

7. $5x^2 - 45$

8. $6x^2 - 7x - 20$ Challenge!