

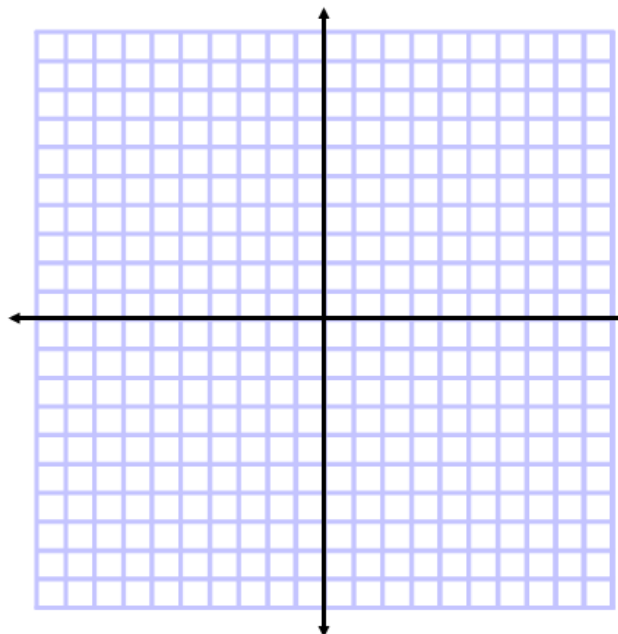
Name \_\_\_\_\_ Pd \_\_\_\_\_ Date \_\_\_\_\_

**Graphing Quadratic Functions (Day 2),** Advanced Algebra with Trig- Glawe

1. Given the function  $f(x) = -4x^2 + 8x + 4$  find the following:

- Find  $\frac{-b}{2a} =$  \_\_\_\_\_
- What is the vertex? \_\_\_\_\_
- What is the orientation of this function? \_\_\_\_\_
- Is the Vertex a maximum or minimum? \_\_\_\_\_
- What is the maximum/minimum value? \_\_\_\_\_
- What is the y-intercept? \_\_\_\_\_
- What is the equation for the axis of symmetry? \_\_\_\_\_

Graph the parabola below:



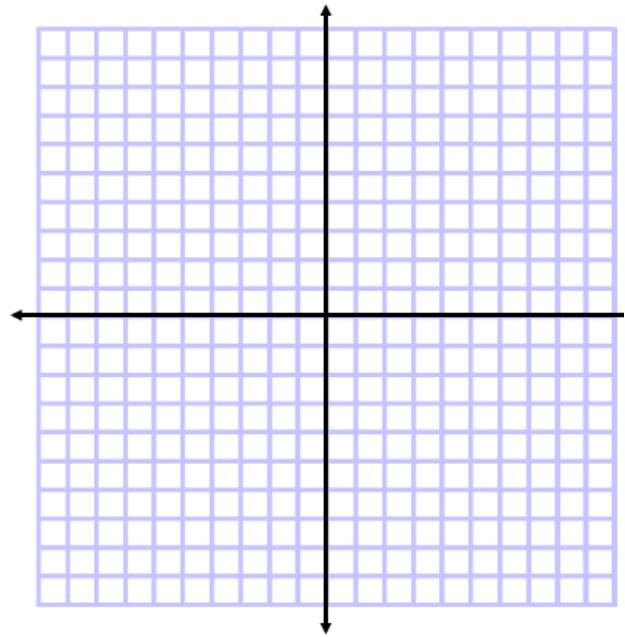
2. Given the function  $f(x) = -12x^2 - 24x + 7$  find the following:

- Find  $\frac{-b}{2a} =$  \_\_\_\_\_
- What is the vertex? \_\_\_\_\_
- What is the orientation of this function? \_\_\_\_\_
- Is the Vertex a maximum or minimum? \_\_\_\_\_
- What is the maximum/minimum value? \_\_\_\_\_
- What is the y-intercept? \_\_\_\_\_
- What is the equation for the axis of symmetry? \_\_\_\_\_

3. Given the function  $f(x) = x^2 - 6x + 3$  find the following:

- a. Find  $\frac{-b}{2a} =$
- b. What is the vertex? \_\_\_\_\_
- c. What is the orientation of this function? \_\_\_\_\_
- d. Is the Vertex a maximum or minimum? \_\_\_\_\_
- e. What is the maximum/minimum value? \_\_\_\_\_
- f. What is the y-intercept? \_\_\_\_\_
- g. What is the equation for the axis of symmetry? \_\_\_\_\_

Graph the parabola below:



4. Given the function  $f(x) = 20x^2 - 40x + 3$  find the following:

- a. Find  $\frac{-b}{2a} =$
- b. What is the vertex? \_\_\_\_\_
- c. What is the orientation of this function? \_\_\_\_\_
- d. Is the Vertex a maximum or minimum? \_\_\_\_\_
- e. What is the maximum/minimum value? \_\_\_\_\_
- f. What is the y-intercept? \_\_\_\_\_
- g. What is the equation for the axis of symmetry? \_\_\_\_\_