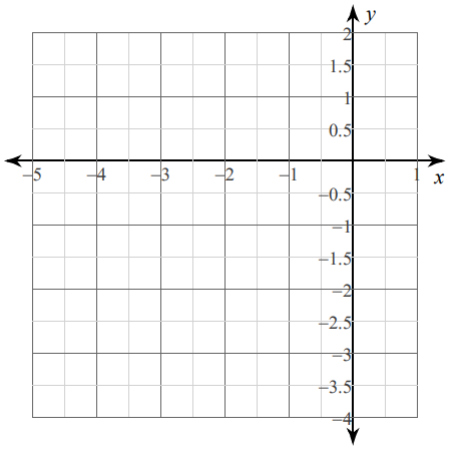
Name_____ Date_____ Per____

Graphing and Analyzing Quadratic Functions in Standard Form Assignment

1) $f(x) = x^2 + 4x + 1$



Open up or down? _____

Axis of Symmetry:_____

Vertex: _____Max /Min? _____

y -intercept: _____

Circle x-intercepts

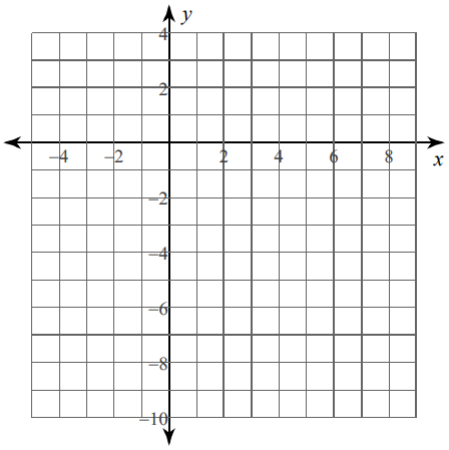
How wide or narrow?_____

Domain: _____Range: _____

Interval of increase: _____

Interval of decrease: _____

2) $f(x) = -3x^2 - 12x - 9$



Open up or down? _____

Axis of Symmetry:_____

Vertex: _____Max /Min? _____

y -intercept: _____

Circle x-intercepts

How wide or narrow?_____

Domain: _____Range: _____

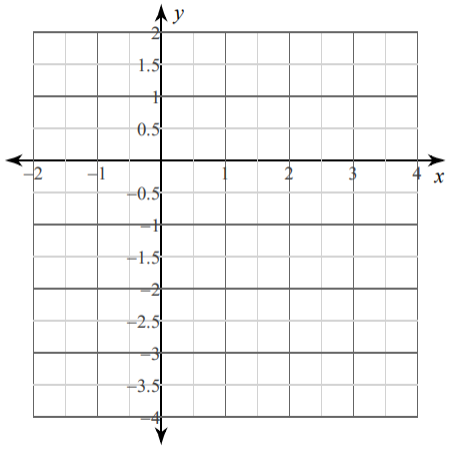
Interval of increase: _____

Interval of decrease: _____

Name_____ Date_____ Per_____

Graphing and Analyzing Quadratic Functions in Standard Form Assignment

3) $f(x) = x^2 - 4x + 1$



Open up or down? _____

Axis of Symmetry:_____

Vertex: _____Max /Min? _____

y -intercept: _____

Circle x-intercepts

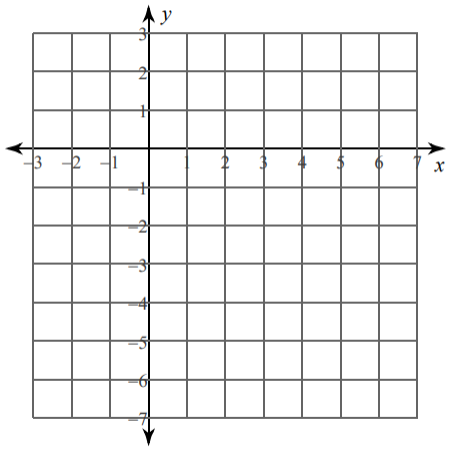
How wide or narrow?_____

Domain: _____Range: _____

Interval of increase: _____

Interval of decrease: _____

4) $f(x) = -2x^2 + 8x - 6$



Open up or down? _____

Axis of Symmetry:_____

Vertex: _____Max /Min? _____

y -intercept: _____

Circle x-intercepts

How wide or narrow?_____

Domain: _____Range: _____

Interval of increase: _____

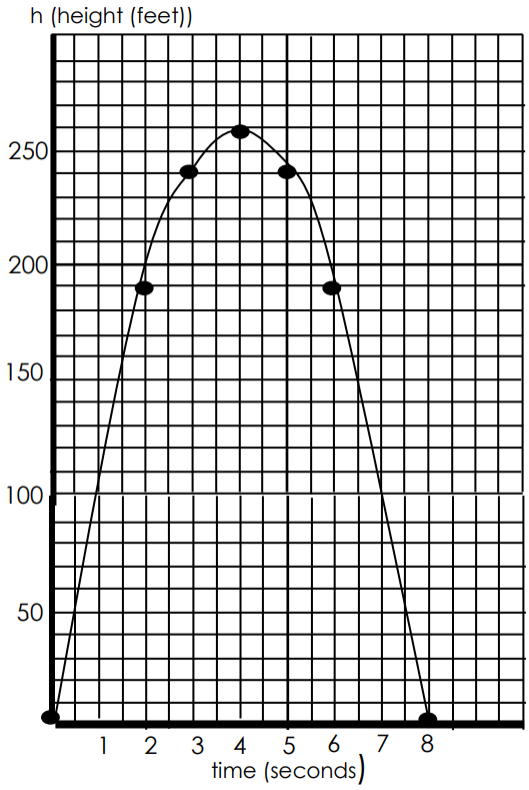
Interval of decrease: _____

Name_____ Date_____ Per_____

Graphing and Analyzing Quadratic Functions in Standard Form Assignment

Using the graph at the right, It shows the height h in feet of a small rocket t seconds after it is launched. The path of the rocket is given by the equation: $h = -16t^2 + 128t$.

1. How long is the rocket in the air? _____



2. What is the greatest height the rocket reaches? _____

3. About how high is the rocket after 1 second? _____

4. After 2 seconds, about how high is the rocket?_____

is the rocket going up or going down? _____

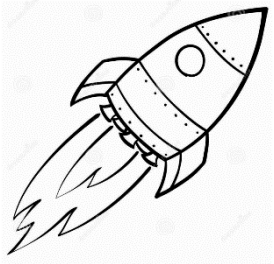
5. After 6 seconds, about how high is the rocket? _____

is the rocket going up or going down? _____

6. Do you think the rocket is traveling faster from 0 to 1 second or from 3 to 4 seconds? Explain your answer.

_____

7. Using the equation, find the exact value of the height of the rocket at 2 seconds. _____



8. What is the domain of the graph? _____

9. What is the range of the graph? _____

10. Express the interval over which the graph is increasing. _____

11. Express the interval over which the graph is decreasing._____