Worksheet 9.6 Solving Quadratics using Square Roots Name: _____

For the following Quadratic Equations Find the following Then Graph:

Axis of symmetry
b. Vertex
c. Zeros/Roots/x-intercepts
d. If it Opens Up or Down
e. Is it a Max or Min
f. What is the Domain
g. What is the range
h. y-intercept

1. $y = x^2 + 4x - 5$

2. $y = -x^2 + 6x - 2$

3. $y = 2x^2 - 12x + 9$

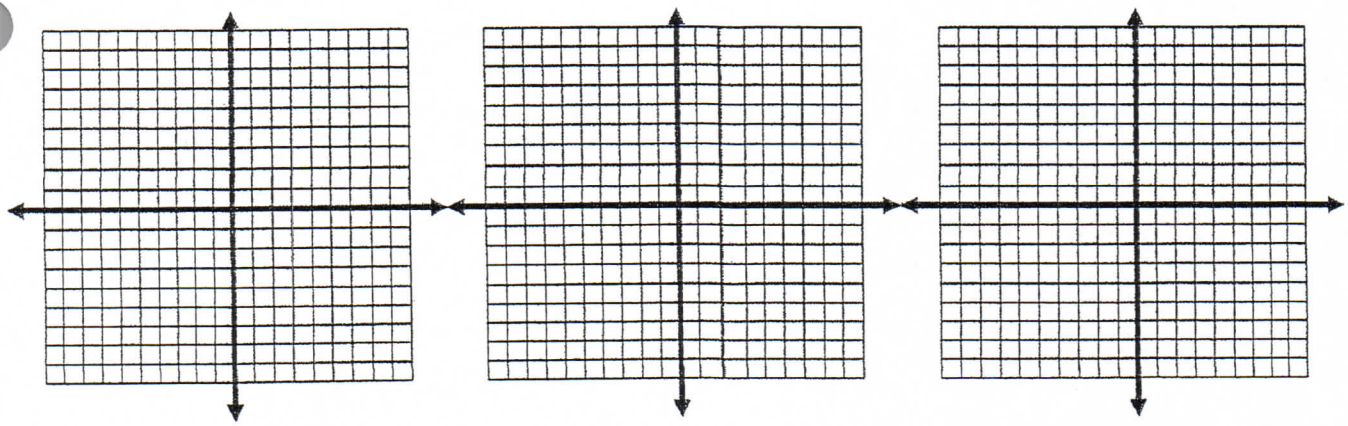
4. $y = -4x^2 + 9$

5. $y = -3x^2 - 12x - 5$

6. $y = 2x^2 - 8x + 10$

7. The height of a flare can be approximated by the function $h = -16t^2 + 95t + 6$ where h is the height in feet and t is the time in seconds. (1) Find the time it take the flare to hit the ground. (2) Find the maximum height of the flare.

Name: _____



Axis of Symmetry: _____ Axis of Symmetry: _____ Axis of Symmetry: _____

Vertex: _____ Vertex: _____ Vertex: _____

Zeros: _____ Zeros: _____ Zeros: _____

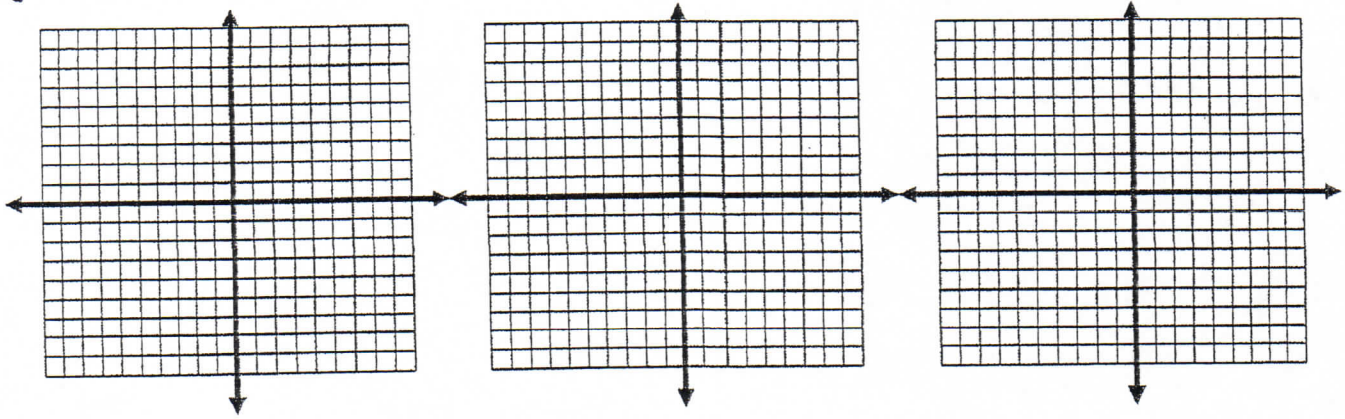
Opens Up or Down: _____ Opens Up or Down: _____ Opens Up or Down: _____

Max or Min: _____ Max or Min: _____ Max or Min: _____

Domain: _____ Domain: _____ Domain: _____

Range: _____ Range: _____ Range: _____

y int: _____ y int: _____ y int: _____



Axis of Symmetry: _____ Axis of Symmetry: _____ Axis of Symmetry: _____

Vertex: _____ Vertex: _____ Vertex: _____

Zeros: _____ Zeros: _____ Zeros: _____

Opens Up or Down: _____ Opens Up or Down: _____ Opens Up or Down: _____

Max or Min: _____ Max or Min: _____ Max or Min: _____

Domain: _____ Domain: _____ Domain: _____

Range: _____ Range: _____ Range: _____

y int: _____ y int: _____ y int: _____