Algebra 1 Section 9.3, 9.4, and 9.5 HW Name: _____

For the following Quadratic Equations Find the following Then Graph:

a. 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. $y=-2x^2-20x-48$

2. $y=x^2-12x+32$

3. $y=2x^2+4x-6$

4. $y=-x^2+8x-15$

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

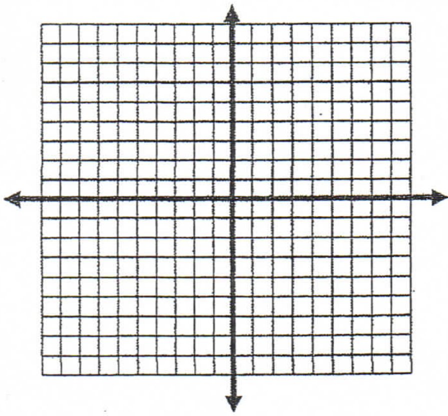
6. $y=2x^2-4x+5$

7. The height of a diver above the water during a dive can be modeled by $h=-16t^2+8t+24$ where h is the height in feet and t is the time in seconds. Find the time it takes for the diver to reach the water.

8. The height of a fireworks rocket in meters can be approximated by $h=-5t^2+30t$ where h is the height in meters and t is time in seconds. (1)Find the time it takes the rocket to reach the ground after it has been launched. (2) Find out what the maximum height of the rockets is.

9. 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 takes the flare to hit the ground. (2) Find the maximum height of the flare.

Name: ______________________________



Axis of Symmetry: ________

Vertex: ____________

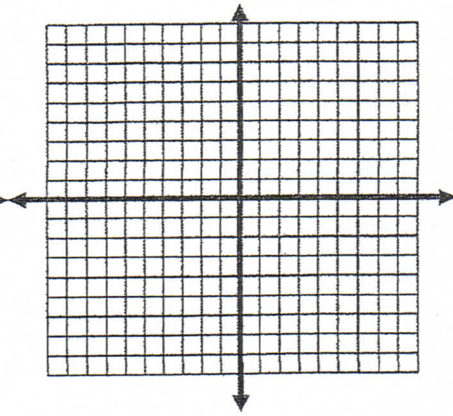
Zeros: ____________

Opens Up or Down: ________

Max or Min: ____________

Domain: ____________

Range: ____________



Axis of Symmetry: ________

Vertex: ____________

Zeros: ____________

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Max or Min: ____________

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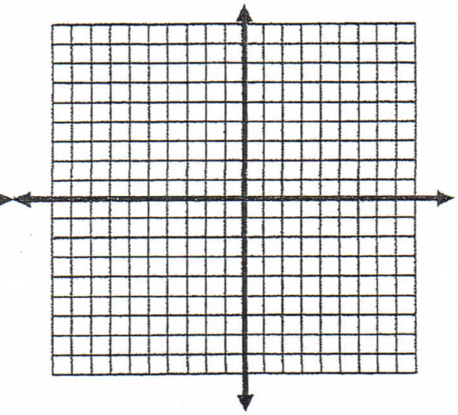

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Vertex: ____________

Zeros: ____________

Opens Up or Down: ________

Max or Min: ____________

Domain: ____________

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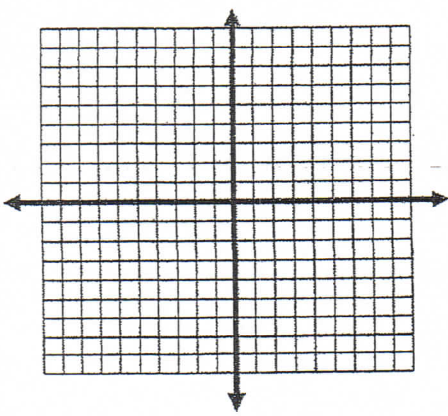

Axis of Symmetry: ________

Vertex: ____________

Zeros: ____________

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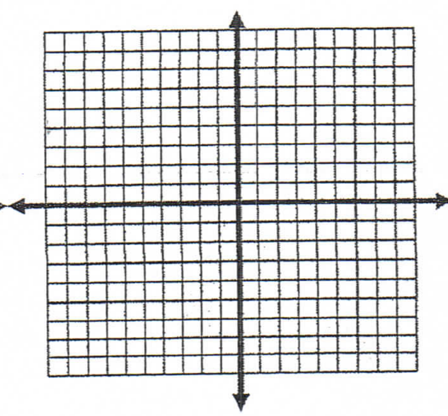

Axis of Symmetry: ________

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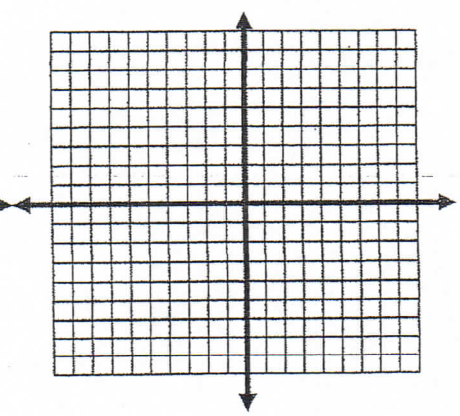

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