Algebra 1 Section 9.3, 9.4, and 9.5 Notes          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. $y = x^2 + 2x - 8$

2. $y = x^2 + 16x + 63$

3. $y = 4x^2 + 8x + 3$
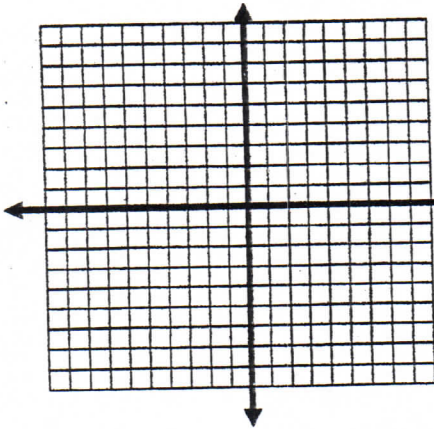
4. $y = -x^2 - 14x - 49$

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

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

7. The height of a diver above the water during a dive can be modeled by $h = -16t^2 + 8t + 48$ 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. A group of friends tries to keep a beanbag from touching the ground without using their hands. Once the beanbag has been kicked, its height can be modeled by $h = -16t^2 + 14t + 2$, where h is the height in feet above the ground and t is the time in seconds. Find the time it takes the beanbag to reach the ground.

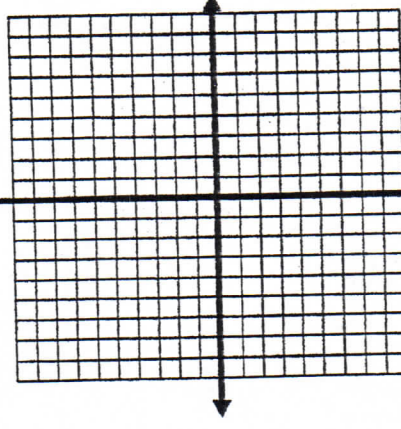Name:_____

Axis of Symmetry:_____

Vertex: _____

Zeros: _____

Opens Up or Down:_____

Max or Min: _____

Domain: _____

Range: _____

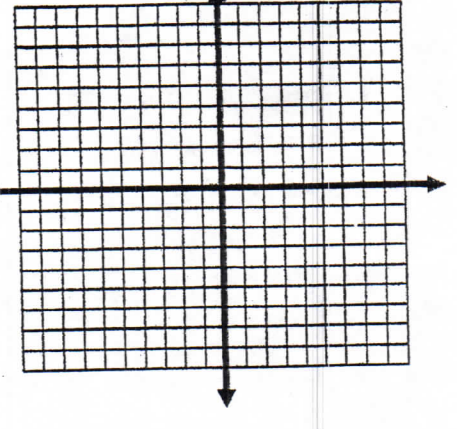yint _____

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Vertex: _____

Zeros: _____

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Axis of Symmetry:_____

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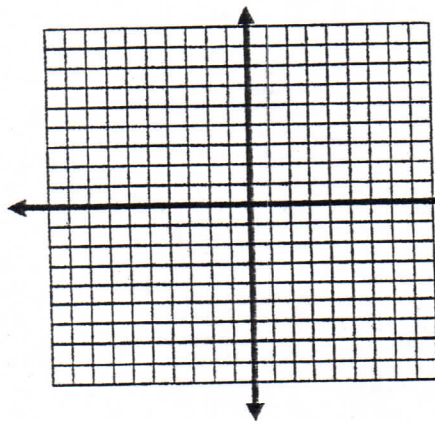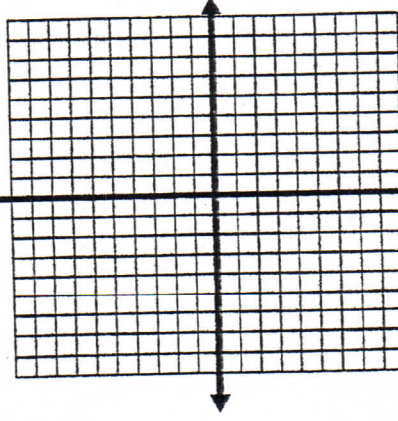yint _____

Axis of Symmetry:_____

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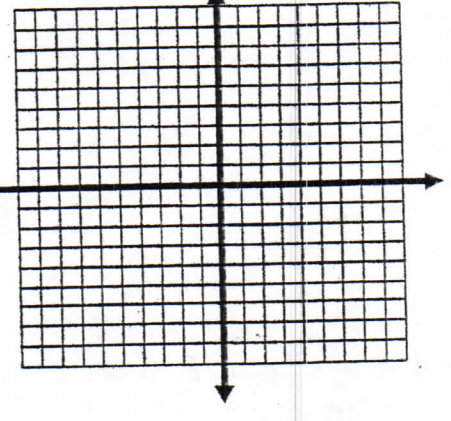yint _____

Axis of Symmetry:_____

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