Show All Work for Credit!!!!!!!!!!!!!!!!!!
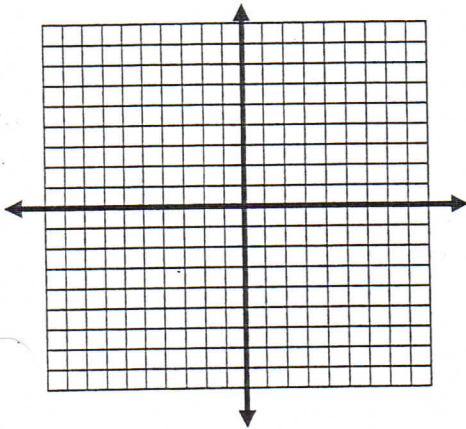
Name: _____

ɔr the Quadratic Equation 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. $y = x^2 + 8x + 12$

Axis of Symmetry:_____

Vertex: _____

Zeros: _____

Opens Up or Down:_____

Max or Min: _____

Domain: _____

Range: _____

Y-intercept:_____

2. The height of a flare fired from the deck of a ship in distress can be modeled by $h = -16t^2 + 104t + 56$, where h is the height of the flare above water and t is the time in seconds.

A. Find the time it takes the flare to hit the water

B. Find the maximum height of the flare

a. Time to hit the water: _____

b. Maximum height: _____

3. Solve by factoring:

$y = 3x^2 - 12x - 36$