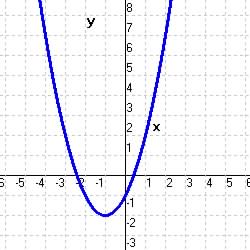
Module 7b Review

Solve the following:

Answer the following questions about the word problem:

1. If Alanis and Lauren are playing catch and Lauren throws the ball in a path that can be modeled by the equation where h is height in feet and t is time in seconds. Make sure to write your answers in the correct units.
   1. What is the initial velocity of the throw?
   2. What is the initial height of the throw?
   3. When will her throw hit the ground?
   4. When will her throw hit its maximum height?
   5. When will the throw reach 36 feet for the first time?
   6. When will the throw reach 21 feet on the way down?
   7. What is the maximum height of the throw?
2. Create an equation to model Alanis’s throw back to Lauren if it has the same acceleration and same initial height, but an initial velocity of 59 feet per second.
   1. What is the maximum height of her throw?
   2. When will it hit its maximum height?
   3. When will it reach 49 feet for the first time?

Given the following graph, answer the questions that follow.

a) Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_

b) Vertex: \_\_\_\_\_\_\_\_\_\_\_\_

c) y-intercept: \_\_\_\_\_\_\_\_\_\_\_\_

d) x – intercepts: \_\_\_\_\_\_\_\_\_\_\_\_

e) Increasing Interval: \_\_\_\_\_\_\_\_\_\_\_\_

f) Decreasing Interval: \_\_\_\_\_\_\_\_\_\_\_\_

g) Domain: \_\_\_\_\_\_\_\_\_\_\_\_

h) Range: \_\_\_\_\_\_\_\_\_\_\_\_

1. Given the function answer the following:

a) Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_ b) Vertex: \_\_\_\_\_\_\_\_\_\_\_\_

c) y-intercept: \_\_\_\_\_\_\_\_\_\_\_\_ d) Solutions: \_\_\_\_\_\_\_\_\_\_\_\_

e) Increasing Interval: \_\_\_\_\_\_\_\_\_\_\_\_ f) Decreasing Interval: \_\_\_\_\_\_\_\_\_\_\_\_

g) Domain: \_\_\_\_\_\_\_\_\_\_\_\_ h) Range: \_\_\_\_\_\_\_\_\_\_\_\_