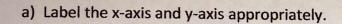
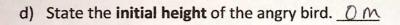
Example (Solutions):

In the game Angry Birds, a bird is pulled down, using the slingshot, shot off of the ground, misses its target and falls to back to the grass. The path of the bird is as follows: $h(t) = -t^2 + 6t$, where h(t) represents the height in the factor of time, t, in seconds.

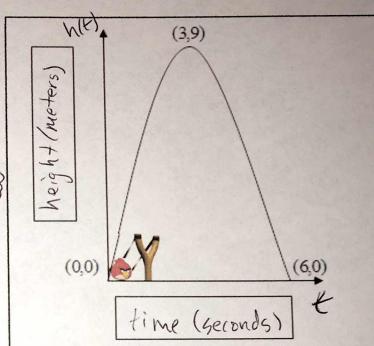


b) Why is the graph only in quadrant 1? No negative time or height

c) Find the: domain: $\frac{24 \cdot 046, 4623}{5 \cdot h(t) \cdot 04h(t)49, h(t)}$



- e) Where on the graph would you find the maximum height? <u>verfex</u> (3,9)
- f) What is the maximum height? 9 Meters



- g) At what time does the bird reach its maximum height? 3 seconds
- h) Where on the graph does the angry bird hit the ground? O Meters (6,0)
- i) At what time(s) does the angry bird hit the ground? 6 500000 S
- k) How high is the angry bird off the ground after 1 second?

$$h(1) = -(1)^2 + 6(1)$$

 $h(1) = -1 + 6$
 $h(1) = 5$

After 1 second, the argry bird is 5 meters off the ground.