

1. An object is shot into the air with an initial velocity of 144 ft/sec from the top of a 20 foot tall platform.

The following equation models the objects height as a function of time:

$$h(t) = -16t^2 + 144t + 20$$

a) Find the maximum height of the object.

b) Find the time it takes the object to reach this maximum height.

2. Use this quadratic: $y = -4(x + 3)^2 + 11$

a) Find the equation for the LOS.

b) Find the coordinates of the Vertex.

c) Find the y-intercept.