Vertical Motion Activity Solutions
Author: Angie DeVoss

Problem 1:

Equation: $s(t) = -16t^2 + 42t + 6$

Function: $f1(x) = -16x^2 + 42x + 6$

Maximum height the ball reaches: 33.563 feet

Length of time it took the ball to reach the student in the stands: 2 sec.

Problem 2:

Equation: $s(t) = -16t^2 + 28t$

Function: $f1(x) = -16x^2 + 28x$

Maximum height the ball reaches: 12.25 feet

Length of time it took the ball to reach the ground: 1.75 sec.