

Position, Velocity, Acceleration Word Problems:

1. An object dropped from a cliff has acceleration $a = 9.8 \text{ m/s}^2$ under the influence of gravity. What is the function $s(t)$ that models its ~~height~~ ^{distance Fallen} at time t ?
2. Suppose that a baseball is thrown upward from the roof of a 100 meter high building. It hits the street below eight seconds later. What was the initial velocity of the baseball, and how high did it rise above the street before beginning its descent?
3. (Harder) A car braked with constant deceleration of 16 ft/s^2 , producing skid marks measuring 200ft before coming to a stop. How fast was the car traveling when the brakes were first applied?