

## Problem 20

A ball with mass 0.15 kg is thrown upward with initial velocity 20 m/s from the roof of a building 30 m high. Neglect air resistance.

- (a) Find the maximum height above the ground that the ball reaches.
- (b) Assuming that the ball misses the building on the way down, find the time that it hits the ground.
- (c) Plot the graphs of velocity and position versus time.