wk.9.home_run.2

A batter swings at a ball that is 1.0 meter above homeplate. She hits it at a velocity of 48 m/s at an angle of 20° above vertical. If the fence is 450 feet from homeplate.

(a) What is the distance in meters?

(b) How long does it take the ball to reach the fence?

(c) How high above the ground is it when it gets to the fence?

answers: (a) 137 m (b) 3.04 s (c) 5.6 m