A stone is dropped from the upper observation deck of the CN tower, 1450 meters above the ground.

a. Find the distance of the stone above the ground level at time $t$.

b. How long does it take the stone to reach the ground?

c. With what velocity does it strike the ground?

d. If the stone is thrown downward with a speed of 5 m/s, how long does it take to reach the ground?