

What is your reaction time?

While another person holds a meter stick at the top, hold your hand ready at the 50 cm mark.

1. The other person will release the meter stick. When you see the meter stick start to fall, grab the meter stick.

position of meter stick where it was caught: _____ cm

distance fallen = $d =$ _____ cm = _____ m

2. Use $d = \frac{1}{2}gt^2$ to find the time the meter stick fell (i.e. your reaction time). You may use $g = 10$ m/sec².

t =

3. How fast was the meter stick moving when you caught it?

Follow up question: You are traveling in your car at 25 m/sec (roughly 50 mph). You suddenly see an obstruction in the road. There is a reaction time before your foot hits the brake. How far does the car travel before your foot hits the brake, using the reaction time you calculated for yourself?