

Physics 11
M. Lam

Reaction Time Lab

Name:

Partner:

Block:

Objective

Determine your reaction time using the uniform acceleration equations

Equipment

ruler (at least 30 cm in length)

Experimental Method

1. Have your partner hold a ruler vertically above the table so that the zero mark is on the bottom.
2. Place the thumb and index finger of your preferred hand at the zero mark of the ruler (the bottom). Open your thumb and index wide enough apart so the ruler can fall through.
3. Have your partner drop the ruler. Your partner must not give indication of when they will drop it.
4. As the ruler is falling, use your thumb and index finger to pinch the ruler as fast as possible. Make sure the ruler does not hit the table before you pinch it; if it does, hold the ruler higher.
5. Record the distance the ruler travelled before being stopped by looking at point where your thumb and index finger pinched.
6. Complete the table by making a total of five measurements and calculating the average.

Distance (cm)					
Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Average

Analysis and Discussion

Use the average distance travelled to calculate your reaction time (i.e. the time that the ruler was falling before being stopped). List your givens with correct +/- signs and units. Show all your work.