

# Lab 1 Finding the Acceleration

Visit the link [https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics\\_en.html](https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics_en.html)

1. Select the force, mass and using the newton’s second law of motion, find the acceleration.
2. Note down the initial velocity, final velocity and the time taken during this change and calculate the acceleration.  
Find the difference between the two accelerations. It must be zero.

Sr. No	Force $F(N)$	Mass $m(kg)$	Acceleration $a_1 = \frac{F}{m}$ (m/sec <sup>2</sup> )	Initial Speed $v_i (ms^{-1})$	Final Speed $v_f (ms^{-1})$	Time Taken $t(s)$			Acceleration $a_2 = \frac{v_f - v_i}{t}$ (m/sec <sup>2</sup> )	Difference $ a_2 - a_1 $ (m/sec <sup>2</sup> )
						1	2	Mean		
1										
2										
3										
4										
5										
6										
7										

Student’s Name \_\_\_\_\_

Date: \_\_\_\_\_