

## Raw Data Sheet

Student Name: \_\_\_\_\_

Team members:

1.- \_\_\_\_\_ 2.- \_\_\_\_\_

3.- \_\_\_\_\_ 4.- \_\_\_\_\_

Instructor: \_\_\_\_\_

### a) Mass-Spring Oscillator

Table 1: Data to obtain the spring constant.

mass (g)					
length (cm)					

Hanging Mass,  $M$  \_\_\_\_\_ 150 \_\_\_\_\_ (g)

Table 2: Data to obtain the Natural Frequency of the system

Trial	Number of Oscillations	Time (s)	Period (s)
1			
2			
3			
4			
5			
Average Period			

**b) Resonance**

Resonance Frequency,  $f_r$  \_\_\_\_\_ (Hz)

Document how the mass moves in relation to the plunger when it is driven above and below the resonant frequency.

**c) Pendulum**

length,  $l$  \_\_\_\_\_ (cm)

Table 3: Data to show deviations from simple harmonic oscillator behavior.

Amplitude (cm)					
Period (s)					

**d) Conical Pendulum**

Number of Orbits,  $N$  \_\_\_\_\_

Time,  $t$  \_\_\_\_\_ (s)

Period,  $T$  \_\_\_\_\_ (s)

radius,  $r$  \_\_\_\_\_ (cm)