

## Lab Report

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Name of the Experiment :

Your Name :

Your ID # :

Name of the Lab Partner :

Date :

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Instructor's comments:

**Data Table 1**

<b><u>Hole Number</u></b>		<b>Distance from COM, d (cm)</b>	<b>Time for 10 oscillations (s)</b>		<b>Mean time t (s)</b>	<b>Time Period <math>T = \frac{t}{10}</math> (s)</b>
<b><u>Edge A</u></b>	<b><u>1</u></b>					
	<b><u>2</u></b>					
	<b><u>3</u></b>					
	<b><u>4</u></b>					
	<b><u>5</u></b>					
	<b><u>6</u></b>					
	<b><u>7</u></b>					
	<b><u>8</u></b>					
<b><u>Edge B</u></b>	<b><u>1</u></b>					
	<b><u>2</u></b>					
	<b><u>3</u></b>					
	<b><u>4</u></b>					
	<b><u>5</u></b>					
	<b><u>6</u></b>					
	<b><u>7</u></b>					
	<b><u>8</u></b>					

***\*\*Note: COM means Center of Mass***

**TABLE 2** (From the graph)

Observations from the horizontal lines	$L$ (m)	$T$ (sec)	$\frac{g}{4\pi^2} \frac{L}{T^2}$ (m/s <sup>2</sup> )	Mean $g$ (m/s <sup>2</sup> )	$K$ (m)	Mean $K$ (m)
1. ABCD	$L = \frac{AC + BD}{2}$					
2. A'B'C'D'	$L' = \frac{A'C' + B'D'}{2}$					

**Calculations for L,  $g$  and  $K$ :**

**Results:**

**Questions:**

1. According to your understanding and the data you have obtained in this experiment, explain the time variation with different suspension of the compound pendulum.
2. Do you think compound pendulum in comparison to simple pendulum would show better oscillatory motion in air for measurement of  $g$ ? Why?

**Discussion:**