**Unit 5 Factors Affecting Speed of a Pendulum**

**Data Collection**

**Diagram of pendulum equipment.**

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| **Part A: Effect of Mass of Pendulum on Speed of Pendulum** |
| **Table 1 – Effect of Mass of Pendulum on Speed of Pendulum****Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;** **Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;**

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| **Trial** | **Rep.** | **Mass*****m*****(g)** | **Speed*****v*****(m/s)** |  |  |  |
| **1** | **1** |  |  |  |  |  |
| **1** | **2** |  |  |  |  |  |
| **1** | **3** |  |  |  |  |  |
| **1** | **Avg.** |  |  |  |  |  |
| **2** | **1** |  |  |  |  |  |
| **2** | **2** |  |  |  |  |  |
| **2** | **3** |  |  |  |  |  |
| **2** | **Avg.** |  |  |  |  |  |
| **3** | **1** |  |  |  |  |  |
| **3** | **2** |  |  |  |  |  |
| **3** | **3** |  |  |  |  |  |
| **3** | **Avg.** |  |  |  |  |  |
| **4** | **1** |  |  |  |  |  |
| **4** | **2** |  |  |  |  |  |
| **4** | **3** |  |  |  |  |  |
| **4** | **Avg.** |  |  |  |  |  |

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| **Part B: Effect of Height of Pendulum on Speed of Pendulum** |
| **Table 2 – Effect of Height of Pendulum on Speed of Pendulum****Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;** **Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;**

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| **Trial** | **Rep.** | **Height*****h*****(cm)** | **Speed*****v*****(m/s)** |  |  |  |
| **1** | **1** |  |  |  |  |  |
| **1** | **2** |  |  |  |  |  |
| **1** | **3** |  |  |  |  |  |
| **1** | **Avg.** |  |  |  |  |  |
| **2** | **1** |  |  |  |  |  |
| **2** | **2** |  |  |  |  |  |
| **2** | **3** |  |  |  |  |  |
| **2** | **Avg.** |  |  |  |  |  |
| **3** | **1** |  |  |  |  |  |
| **3** | **2** |  |  |  |  |  |
| **3** | **3** |  |  |  |  |  |
| **3** | **Avg.** |  |  |  |  |  |
| **4** | **1** |  |  |  |  |  |
| **4** | **2** |  |  |  |  |  |
| **4** | **3** |  |  |  |  |  |
| **4** | **Avg.** |  |  |  |  |  |

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| **Part C: Effect of Length of Pendulum on Speed of Pendulum** |
| **Table 3 – Effect of Length of Pendulum on Speed of Pendulum****Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;** **Constant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;**

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| **Trial** | **Rep.** | **Mass*****m*****(g)** | **Speed*****v*****(m/s)** |  |  |  |
| **1** | **1** |  |  |  |  |  |
| **1** | **2** |  |  |  |  |  |
| **1** | **3** |  |  |  |  |  |
| **1** | **Avg.** |  |  |  |  |  |
| **2** | **1** |  |  |  |  |  |
| **2** | **2** |  |  |  |  |  |
| **2** | **3** |  |  |  |  |  |
| **2** | **Avg.** |  |  |  |  |  |
| **3** | **1** |  |  |  |  |  |
| **3** | **2** |  |  |  |  |  |
| **3** | **3** |  |  |  |  |  |
| **3** | **Avg.** |  |  |  |  |  |
| **4** | **1** |  |  |  |  |  |
| **4** | **2** |  |  |  |  |  |
| **4** | **3** |  |  |  |  |  |
| **4** | **Avg.** |  |  |  |  |  |

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