

THEORY

1. INTRODUCTION

The purpose of this experiment is to determine the acceleration due to gravity (g) using a simple pendulum. The period of oscillation (T) of a simple pendulum is related to the length (L) of the pendulum and the acceleration due to gravity (g) by the equation:

$$T = 2\pi \sqrt{\frac{L}{g}}$$

2. APPARATUS

- Simple pendulum
- Stopwatch
- String
- Bob
- Support stand

3. PROCEDURE

The procedure involves measuring the period of oscillation for different lengths of the pendulum. The length (L) is measured from the pivot point to the center of the bob. The period (T) is measured by timing a large number of oscillations (n) and dividing the total time by n.

EXPERIMENT

