

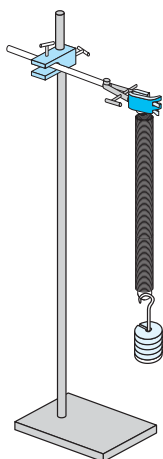
School				Mark (10)
Name		HKID		
Class (No.)		Date		

A3 Timing Oscillations

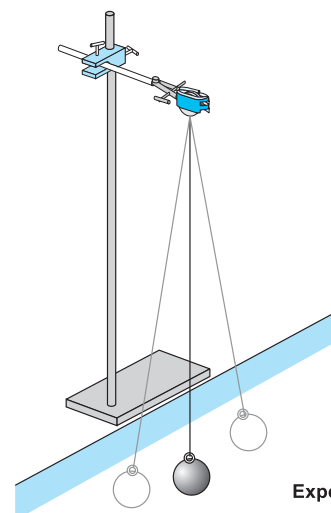
Answers to Preview Questions

1. _____
2. _____
3. _____
4. _____

Experiment 1 Determining the force constant of a spring through a mass-spring system



Experiment 1



Experiment 2

Experiment 1 Step 2

step size of load _____

Table 1

Load, m ()										
T_1 ()										
T_2 ()										
mean T										
T^2										

Plot of T^2 against m **Data Analysis 1**

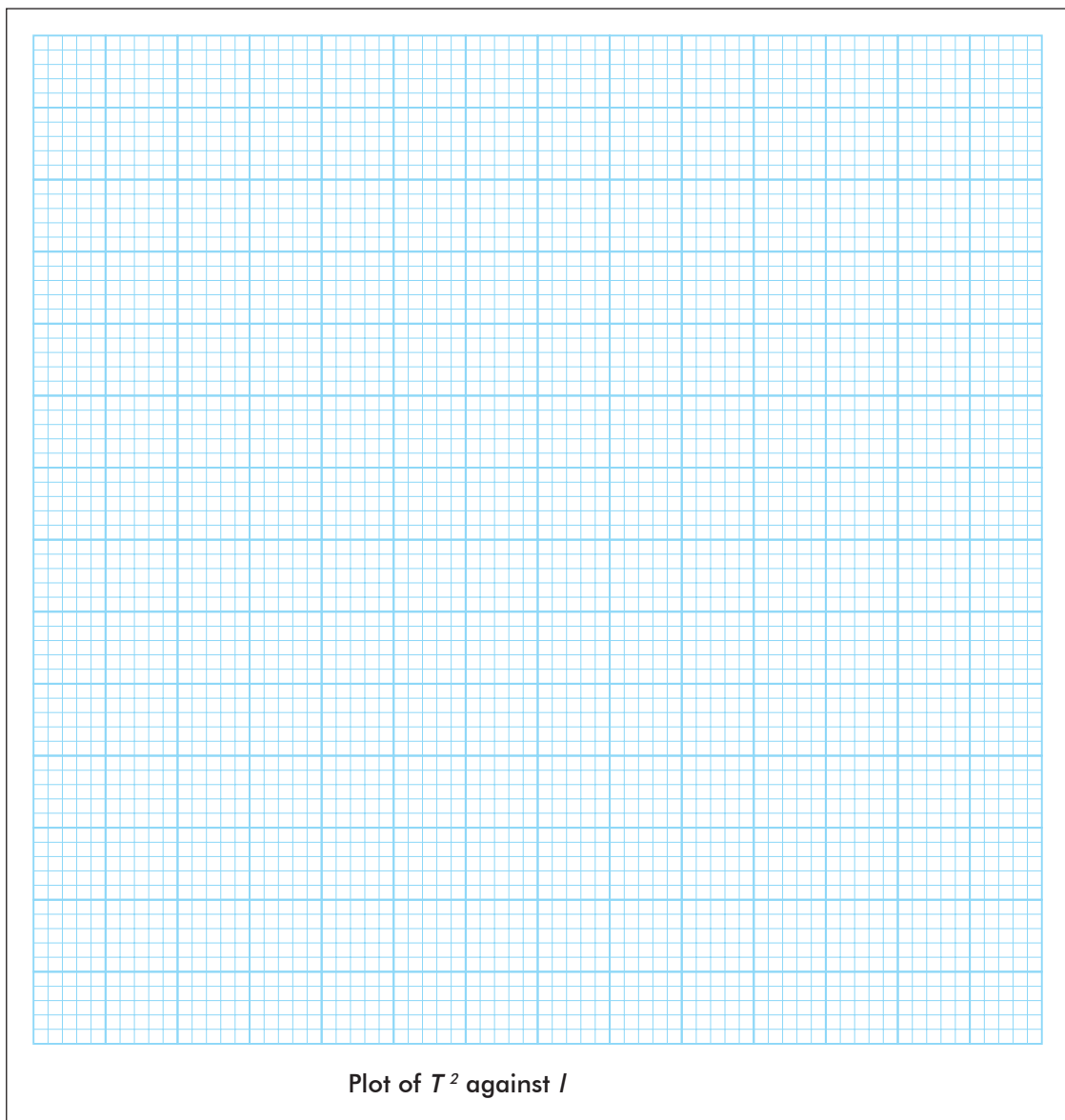
2. Mean of T^2 _____ mean of m _____
Coordinate of the centroid _____
4. Slope of the graph, m' _____
Force constant of the spring, k _____
6. m^+ _____ $|m^+ - m'|$ / _____
 m^- _____ $|m^- - m'|$ / _____
 $\Delta m'$ _____
7. Percent error in slope _____
Percent error in k _____
8. Force constant of the spring, k _____

Teacher's Remark

Experiment 2 Determining the acceleration due to gravity indirectly by timing a simple pendulum

Table 2

Length, l ()										
T_1 ()										
T_2 ()										
mean T										
T^2										



Data Analysis 2

2. Mean of T^2 _____ mean of l _____
 Coordinate of the centroid _____
4. Slope of the graph, m _____
 Acceleration due to gravity, g _____
6. m^+ _____ $|m^+ - m^-|$ _____
 m _____ $|m - m^-|$ _____
 Δm _____
7. Percent error in slope _____
 Percent error in g _____
8. Acceleration due to gravity, g _____

Answers to Discussion

1. _____

2. _____

3. _____

4. _____

5. _____

