Princess Sumaya University for Technology
جامعة الأميرة سميّة للتكنولوجيا

PHYSICS LAB

(20147)

Experiment No. 5

Newton's Second Law
Acceleration due to gravity

Name: ……. Reg.No. ( )

Partner name:…….. Class ( )

Date / / 20 Mark ( )

Acceleration due to gravity (g)

1- Objectives

_____

_____

2- Apparatus

_____

_____

3- Data

a) Complete the following table:

d = _____cm, y = _____cm, x = _____cm, h = y-x =_____cm

No.	P_1	P_2	P_3	S_1	S_2	t_1	t_2	a	g
1									
2									
3									
								Avg.=	

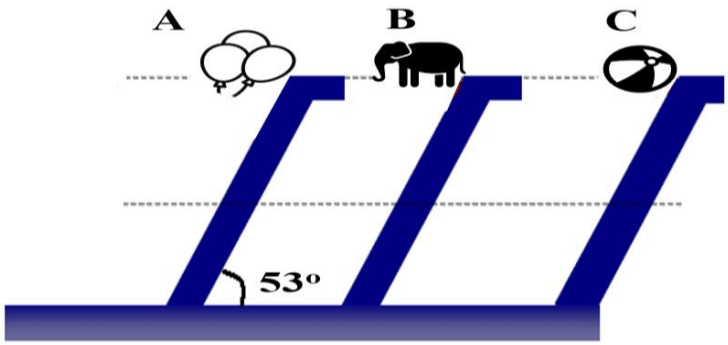
b) Calculate the error in the average of g.

_____

_____

4. Questions:

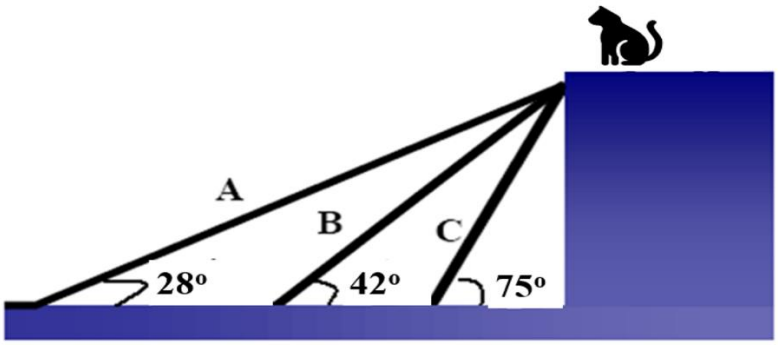
1. The figure below shows three objects of different masses. They are released from rest at the same time from the same level and slide down the ground, neglect air resistance.



a) Which object will reach the ground first?

1) Object A
2) Object B
3) Object C
4) All will reach at the same time.

2. The three tracks A, B, and C shown in the figure below are frictionless. The animal at rest.



a) On which track the animal will slides faster?

1) Track A
2) Track B
3) Track C
4) Will slide in all of them with the same speed.