



Princess Sumaya جامعة  
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## PHYSICS LAB

(20147)

### Experiment No.3

Basic Measurements II  
Spherometer

Name: .....	Reg. No. ( )
Partner name:.....	Class ( )
Date / / 2021	Mark ( )

# Experiment 3

## Basic Measurements II- Spherometer

### 1. Objectives:

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### 2. Data:

#### A. Determining the zero of the spherometer

a) Complete the following table

Table 1: The plane surface.

Term		Main Scale mm	Vernier Scale mm	Total reading mm (b)	Mean Value mm (b) (zero of the spherometer)
Plane surface	1				
	2				

## B. Finding the radius of the Spherical surface R

a) Complete the following table.

Table 2 Spherical surface.

Item	Case	Vertical reading V (mm)	Circular reading C (mm)	Count value V+C (mm)	$a = (V+C) - b$ (mm)	Leg distance S (mm)	R (mm)	Average R (mm)
Large Surface	Concave							
	Convex							
Small Surface	Concave							
	Convex							

## C. Finding the thickness of a slide

a) Complete the following table.

Table 3 Thickness of a slide

Term	Main Scale mm	Vernier Scale mm	Total reading mm	Thickness (a) = total reading – b mm
Slide				

b. Calculate the percentage difference in the thickness of the slide in table 4.

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