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PHYSICS LAB

(20147)

Experiment No. 4

Static Equilibrium

Composition of Concurrent Forces

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

Composition of Concurrent forces

1. Objectives:

_____

_____

_____

2. Apparatus:

_____

_____

Sample:

3. Data:

a) Complete the following table:

No.	F_1		F_2		F_3		Equilibrant Force E		Resultant force from calculations R	
	Value gm	**Angle θ_1**	**Value gm**	**Angle θ_2**	**Value gm**	**Angle θ_3**	**Value gm**	**Angle φ**	**Value gm**	**Angle θ**
1.										
2.										
3.										

b) Calculate the resultant force R for each case in the above table theoretically by using components method. Write your results in the table.

Theoretical Calculations:

No. 1

No.2

No.3

c) Find the resultant force for one case from the above table using the graphical method.

Case no. ____

Scale: 1cm = cm
F_1 = cm
F_2 = cm
F_3 = cm

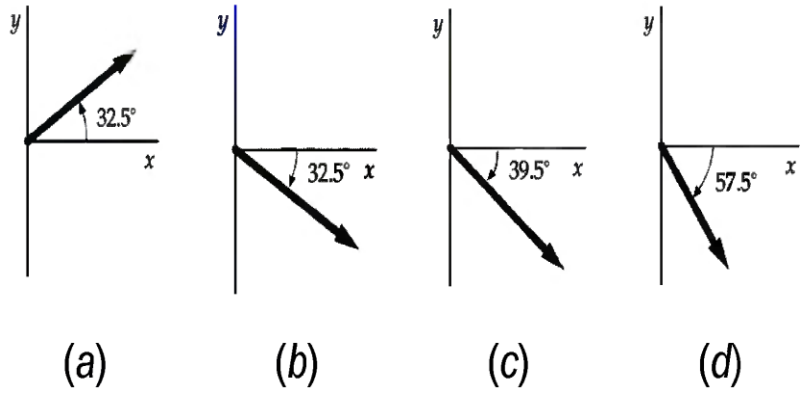
The result:

R= cm, R= gm.

Θ =

4. Questions:

1. A force has an x- component of 5.5 N, and a y- component of -3.5 N. Which diagram in the figure gives the direction of the force?



The answer is _____