



جامعة
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(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:

3. Data:

Sample:

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

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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

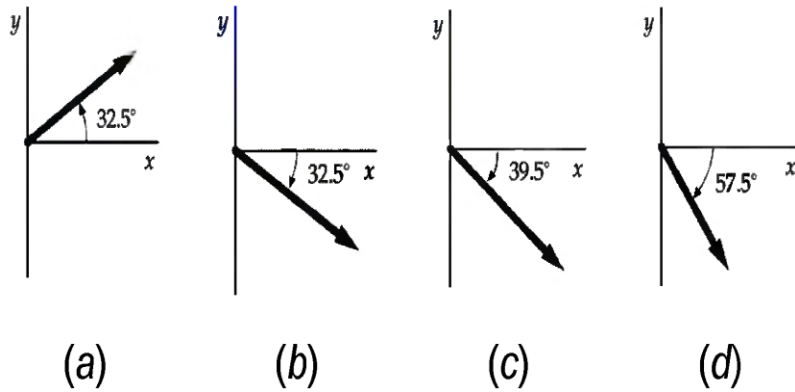
The result:

$R =$ cm, $R =$ gm.

$\Theta =$

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 _____