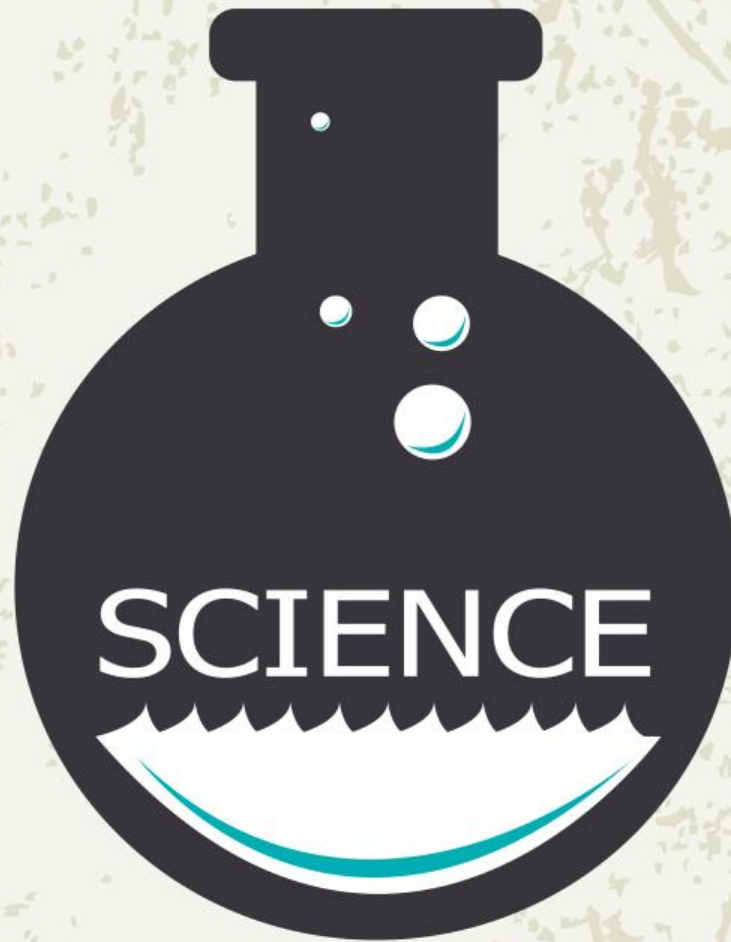


Instructions:

1. Complete record writing for these 6 experiments before 7th october and submit on 7th october.
2. Draw the diagrams, tabular column and values on the LHS of the record and write everything on this side with pencil.
3. Write the procedure and the result on the RHS of the record, and write everything on this side with a pen.
4. Complete the index sheet in the order in which the experiments are written in the record.
5. Paste graph and experiment sheets on the LHS of the record.
6. Wrap the record with a brown paper and label with your name.
7. You can use the values given in the ppt, in case if you have not got proper values.
8. Draw the graphs as shown in the ppt.
9. Videos for experiment 2 and experiment 7 are attached with the ppt for your reference.



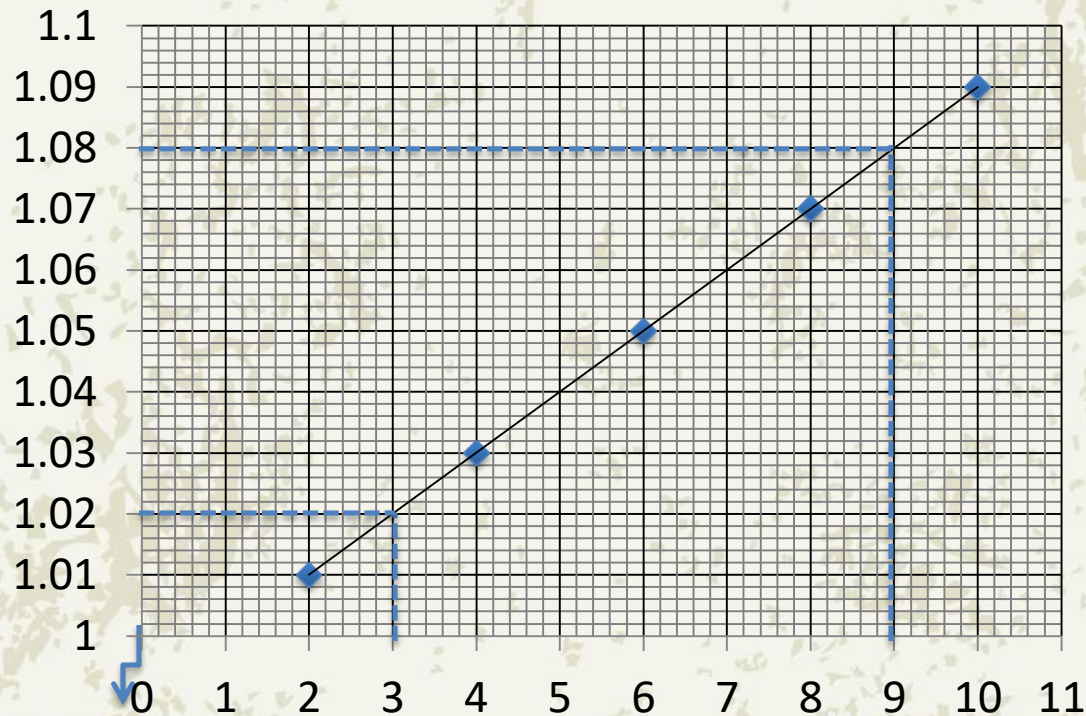


Experiment Number - 1

Class x

TO FIND THE RELATION BETWEEN CONCENTRATION OF SOLUTION AND ITS DENSITY USING HYDROMETER.

Average Density



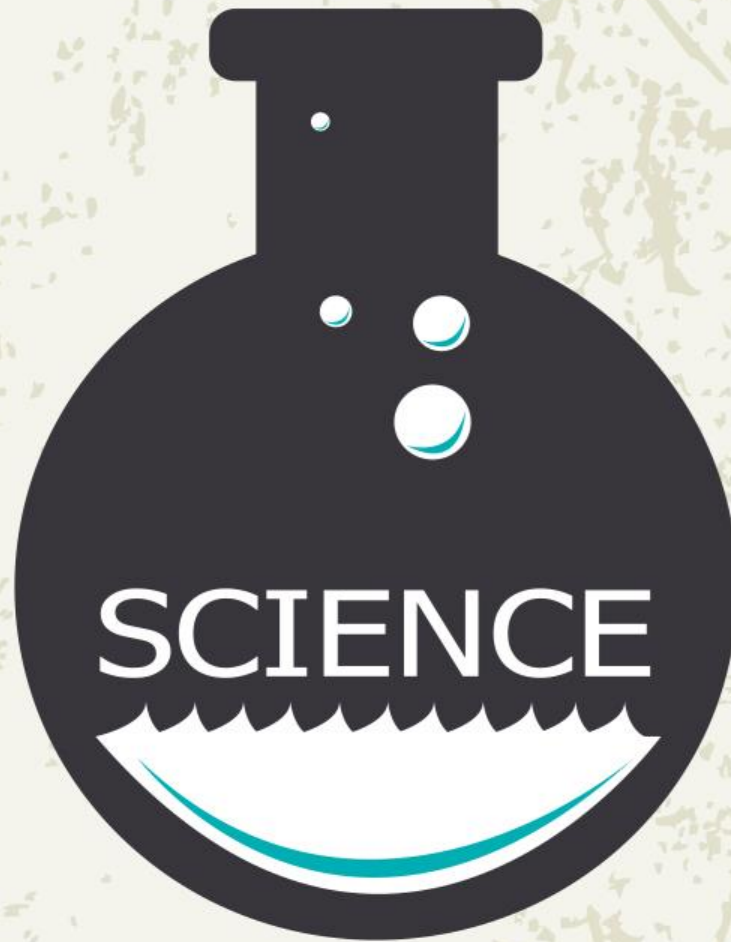
No. of spoons(n)	Density of salt solution 'd' in gcm ³
2	1.01
4	1.03
6	1.05
8	1.07
10	1.09

$d_1 = 1.02$ when $n = 3$

$d_2 = 1.08$ when $n = 9$

$A = (d_2 - d_1)/6 = 0.06/6 = 0.01\text{gcm}^{-3}$ for each spoon.



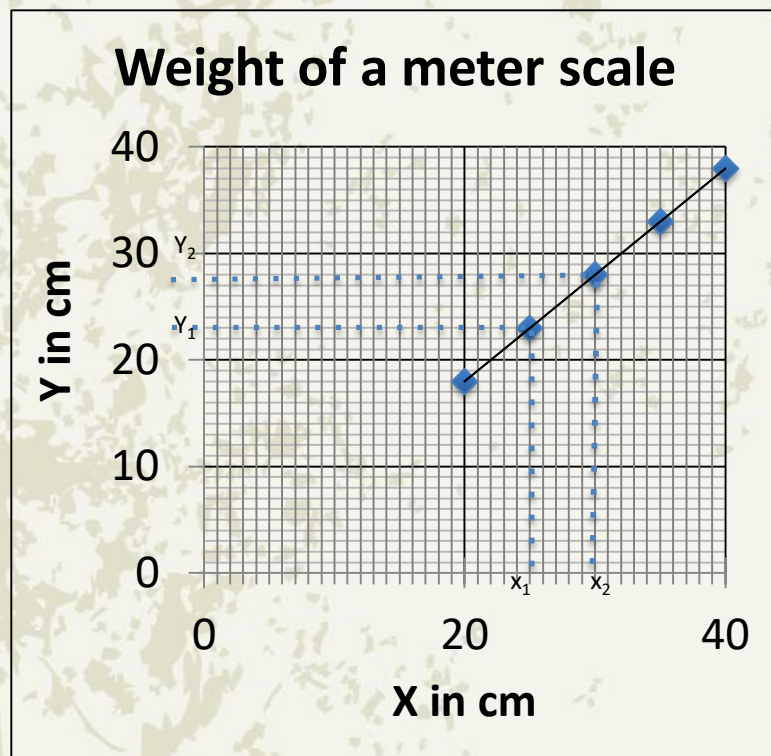


Experiment Number - 2

Class x



X = AC in cm	40	35	30	25	20
Y = BC in cm	38	33	28	23	18



$$Y_1 = 24\text{cm}; y_2 = 28\text{cm}$$

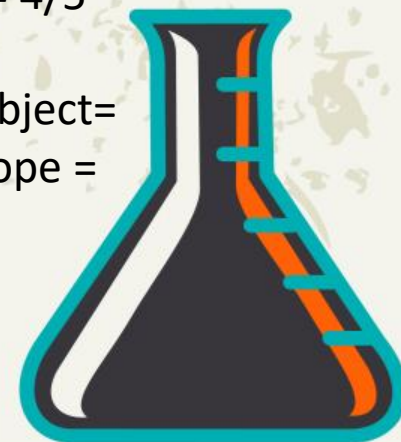
$$X_1 = 25\text{cm}; x_2 = 30\text{cm}$$

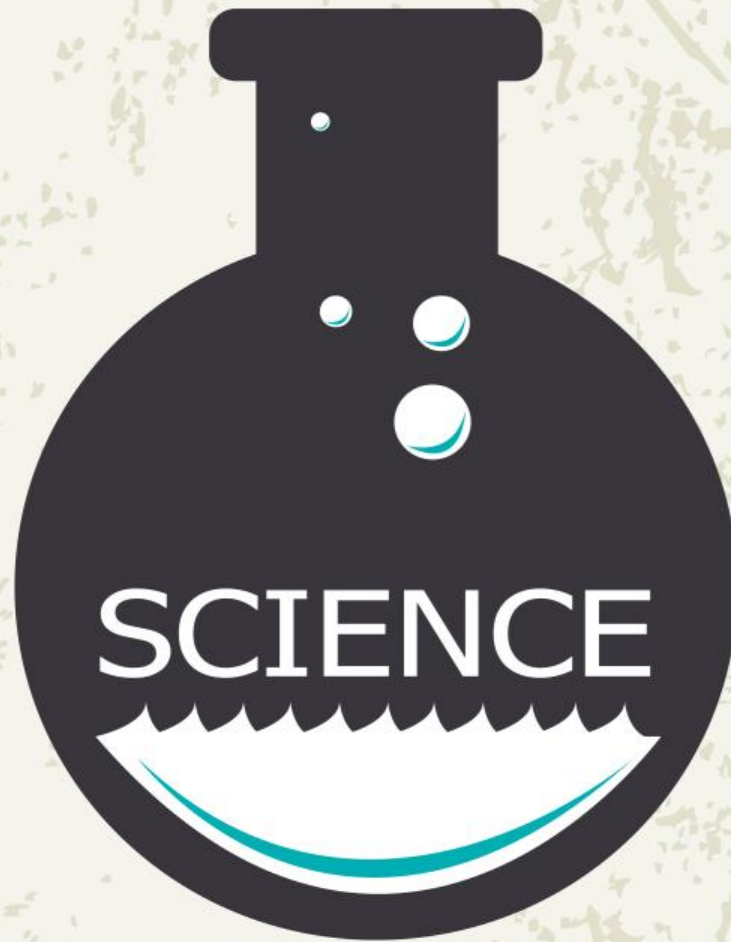
$$\text{Slope} = (28 - 24)/(30 - 25) = 4/5$$

Unknown weight of the object =

$$W = 50 \times (x/y) = 50 \times 1/\text{slope} =$$

$$50 \times 5/4 = 62.5\text{g}$$





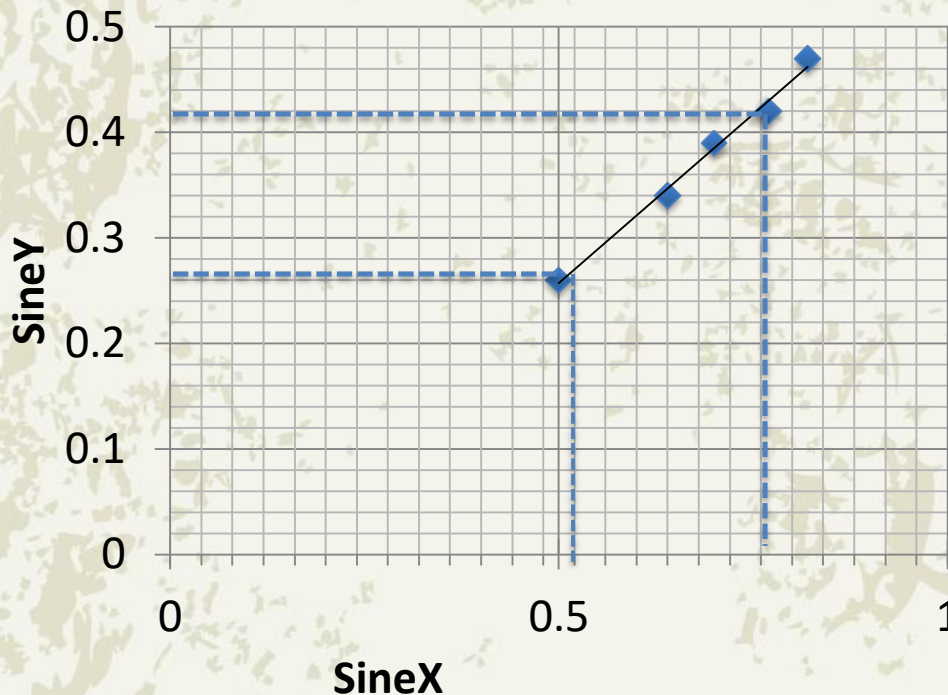
Experiment Number - 5

Class x

To find the refractive index of a glass slab

X in degrees	30	40	45	50	55
Y in degrees	15	20	23	25	28
SineX	0.5	0.64	0.70	0.77	0.82
sineY	0.26	0.34	0.39	0.42	0.47

Refractive Index



X axis – 1 division = 0.04unit

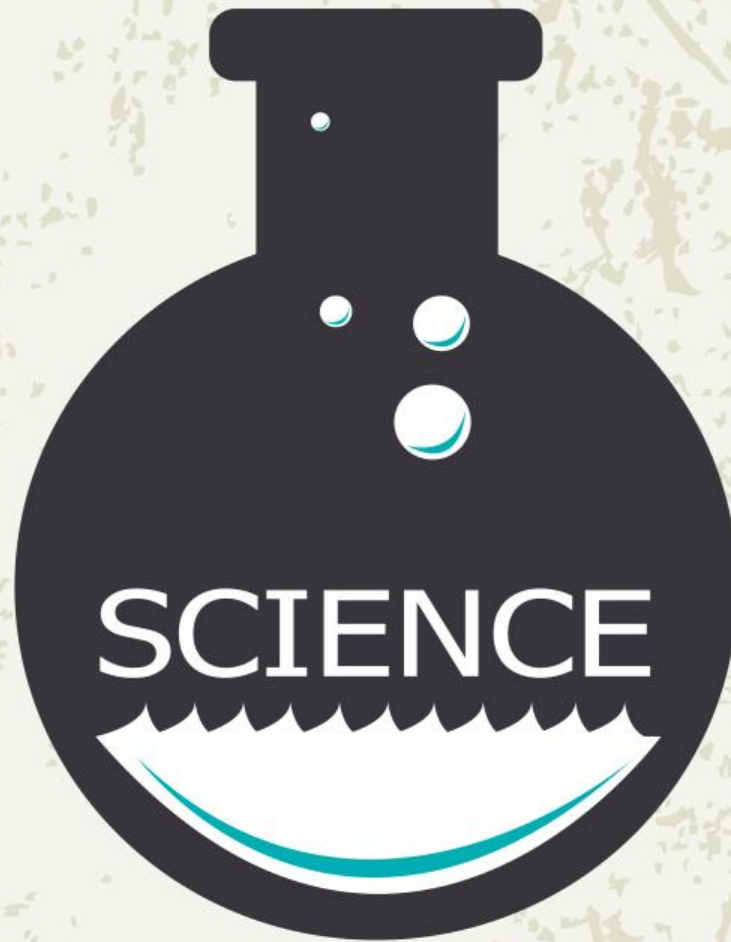
Yaxis – 1 division = 0.02 unit

$Y_1 = 0.26$, $Y_2 = 0.42$; $X_1 = 0.52$, $X_2 = 0.76$

Slope = $(0.42 - 0.26) / (0.76 - 0.52) = 0.16 / 0.24$

Refractive index = $\mu = 1/\text{slope} = 0.24 / 0.16 = 1.5$.





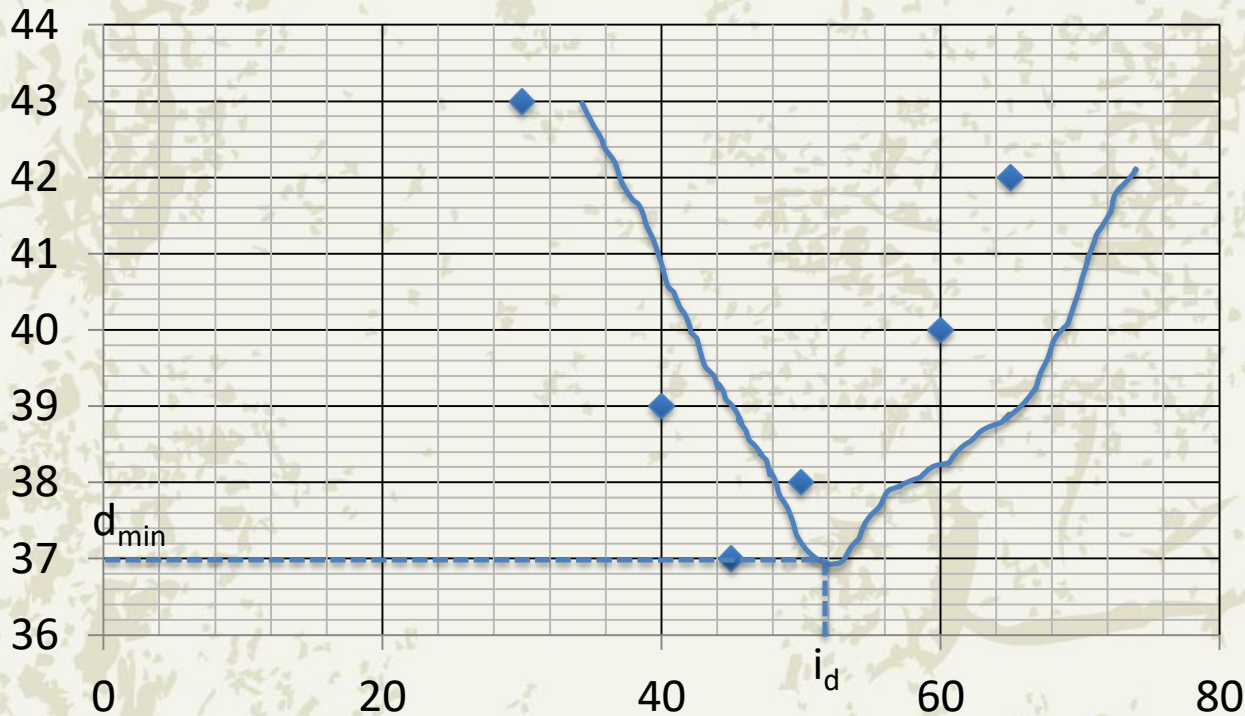
Experiment Number - 6

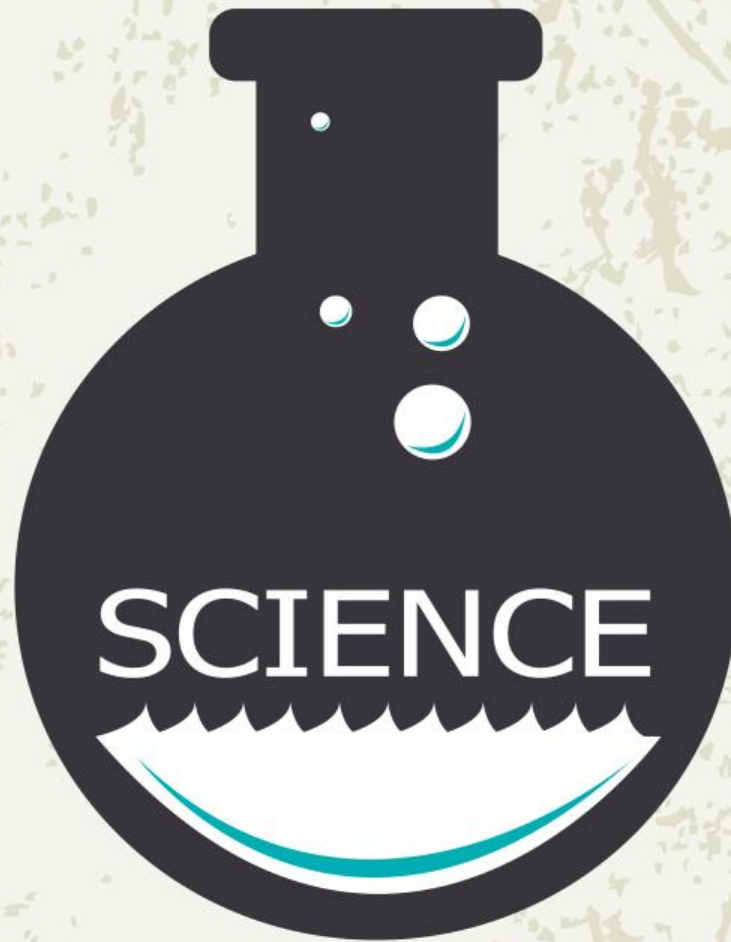
Class x

Relation between angle of incidence and angle of deviation of a equilateral glass prism

Angle of incidence(I)	30	40	45	50	60	65
Angle of deviation (d)	43	39	37	38	40	42

Angle of deviation





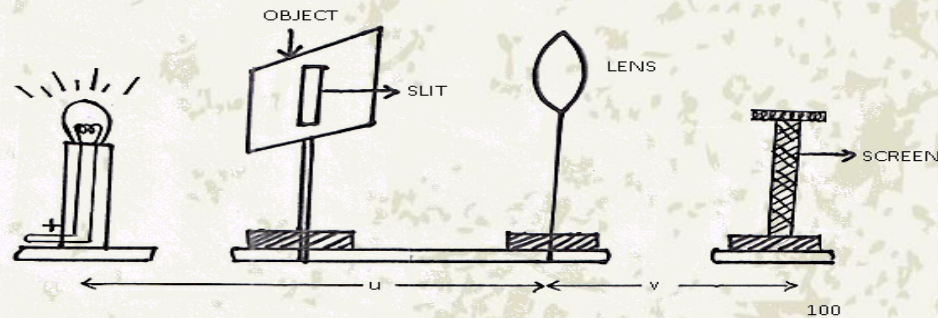
Experiment Number - 7

Class x

AIM OF THE EXPERIMENT

OBJECTIVE : To find

The focal length of convex lens by measuring 'u' and 'v'



APPARATUS REQUIRED



Convex lens



Lens Stand



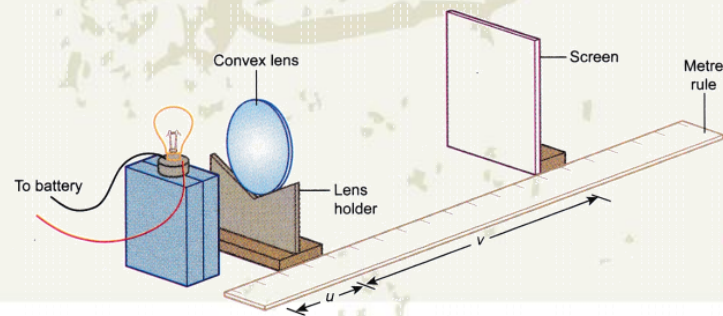
White Screen



Electric Lamp



Metre Scale





Observation (Enter this in the Manual)

U(in cm)	V(in cm)	X = 100/u	Y = 100/v
15	30	6.66(6.7)	3.33(3.3)
20	25	5.00	4.00
25	20	4.00	5.00
30	16	3.33(3.3)	6.25(6.3)
35	12	2.29(2.3)	7.33(8.3)
40	08	2.25(2.2)	7.5

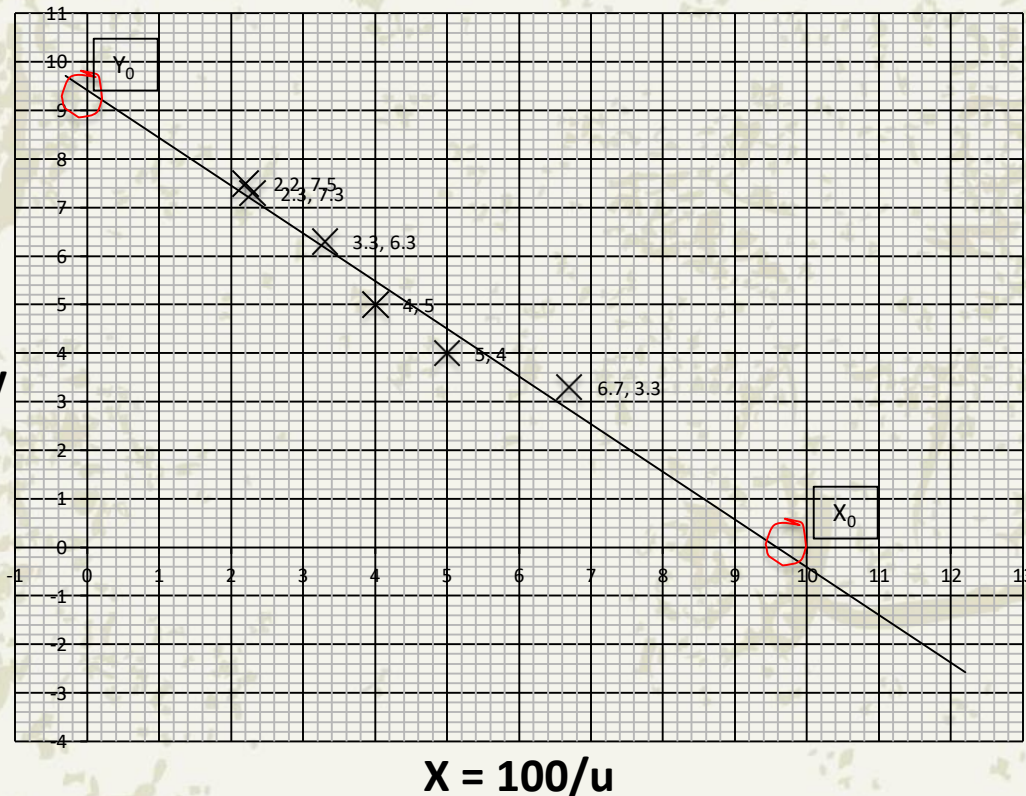
From the graph find

y_0 the value of y when $x = 0$ ($y_0 = 9.4$)

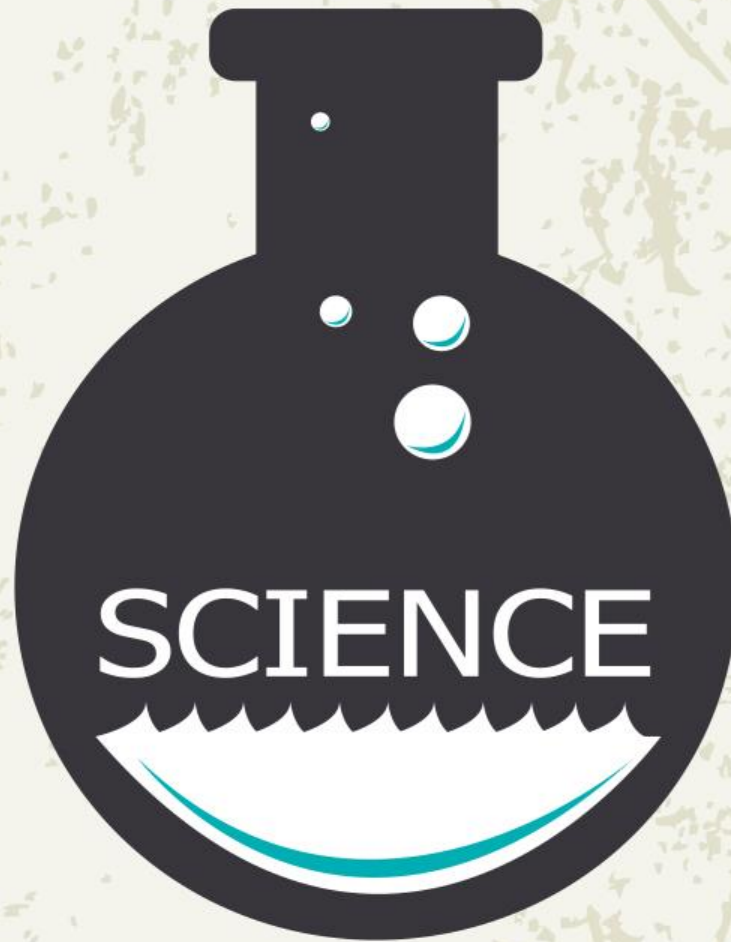
x_0 the value of x when $y = 0$ ($x_0 = 9.6$)

Calculate $F = \frac{200}{x_0 + y_0} = 200/(9.6 + 9.6) = 200/19.0 = 10.52 \text{ cm}$

$Y = 100/v$



Join the points which are in a straight line and extend both ways to cut X and Y axes.



Experiment Number - 10

Class x

USE OF BLOCK AND TACKLE ARRANGEMENT OF THREE PULLEYS AS A MACHINE

V.R. = 3

Least count of the spring balance = 1gwt

Sl.No.	Load(L) gwt	Effort(E) gwt	MA = L/E	Efficiency $\pi = (M.A/V.R) \times 100 \%$
1	50	30	5/3	55.55%
2	100	50	2	66.66%
3	150	60	15/6	83.33%

Mean Efficiency = $(55.55+66.66+83.33)/3 = 68.51\%$

