

V I B G Y O R H I G H

Name: Grade: X Div: Date:

Experiment No:

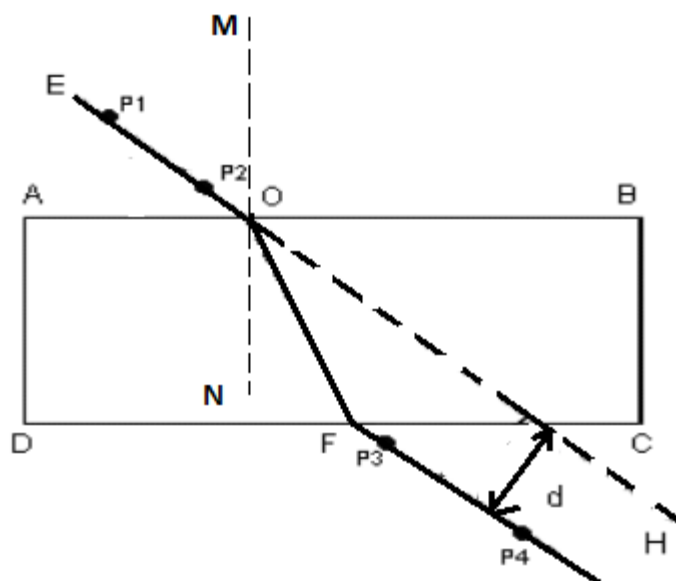
Teacher's Signature:

Aim : To find the relation between the angle of incidence and the lateral displacement when the ray emerges out of the rectangular block.

Apparatus : A glass block, a white sheet of paper, a drawing board, pins, ruler, a protractor, pencil and board pins.

Procedure :

1. Place the given glass flat on the given sheet of paper fixed on the drawing board.
2. Mark the boundary ABCD of the glass block. Remove the glass block and mark the point O on the boundary line AB, as shown in the figure and draw a normal MN.
3. Mark Angle MOE = 30° , fix two pins P1 and P2 at least 5 cm far from each other, on the line OE.
4. Look through the opposite face D and fix two more pins P3 and P4, in line with the images of P1 and P2, as seen through the glass block.
5. Join P3 and P4 by straight line and produce backward to meet face CD at F.
6. Produce the incident ray EO forward, say, up to H and measure the perpendicular distance 'd' between the incident ray produced and the emergent ray.
7. Repeat the experiment with 3 more angles of incidence and note down the corresponding d.



Record your observation in the tabular column provided below.

Observation No.	Angle of incidence	Lateral displacement 'd' in cm
1.	30°	
2.	40°	
3	50°	
4.	60°	

Plot the graph of angle of incidence against 'd' from the observation.

Inference :
