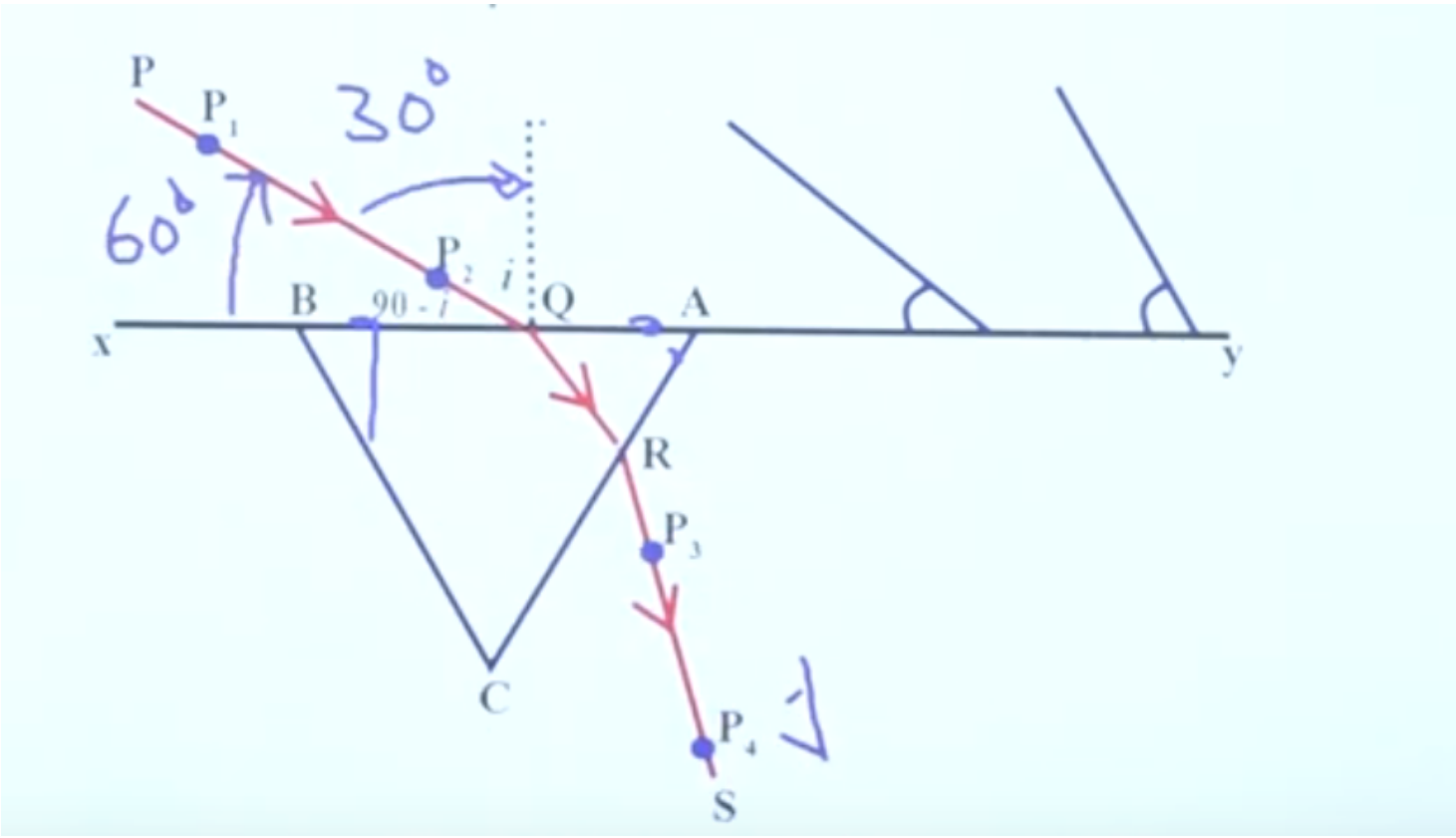
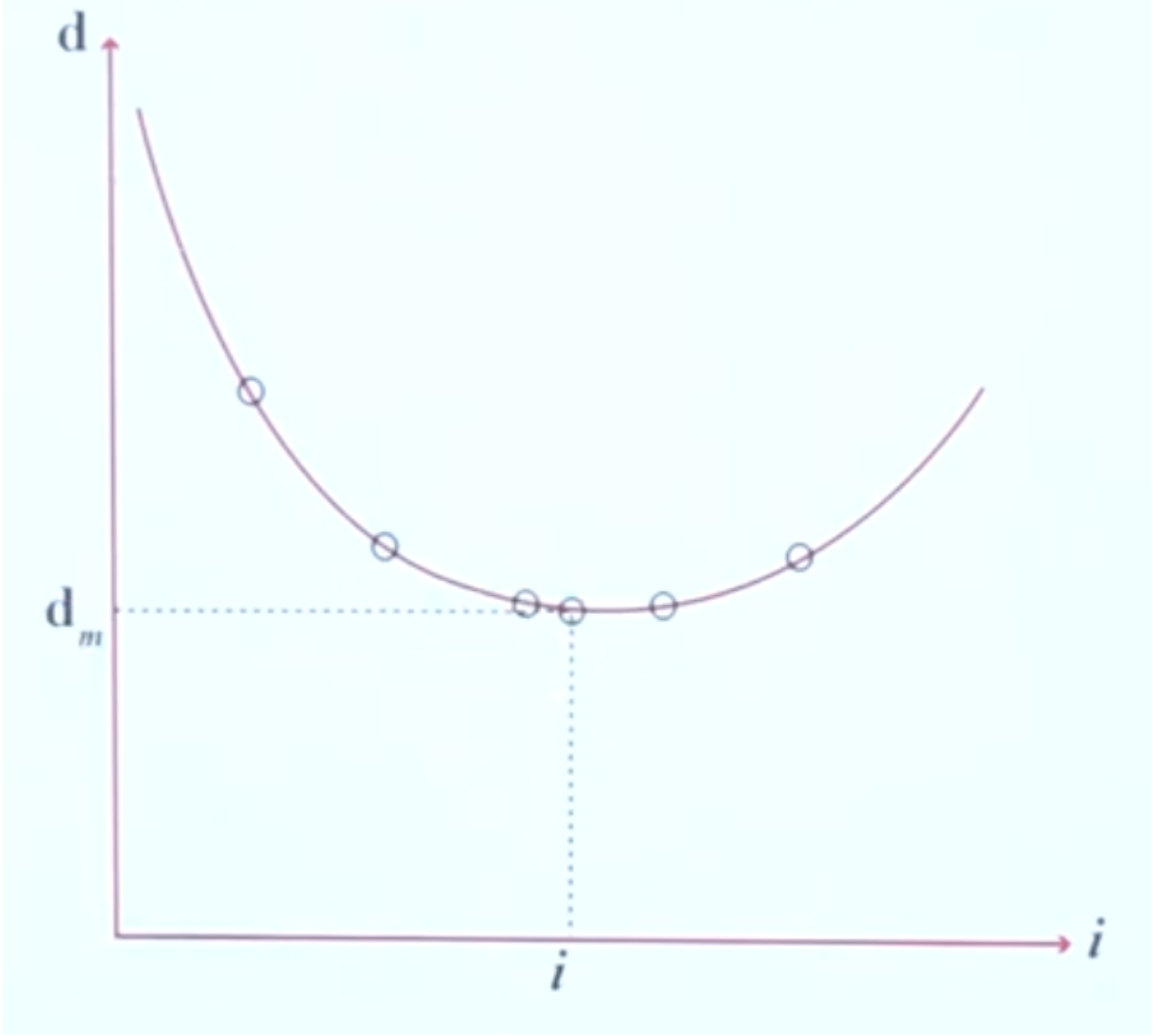
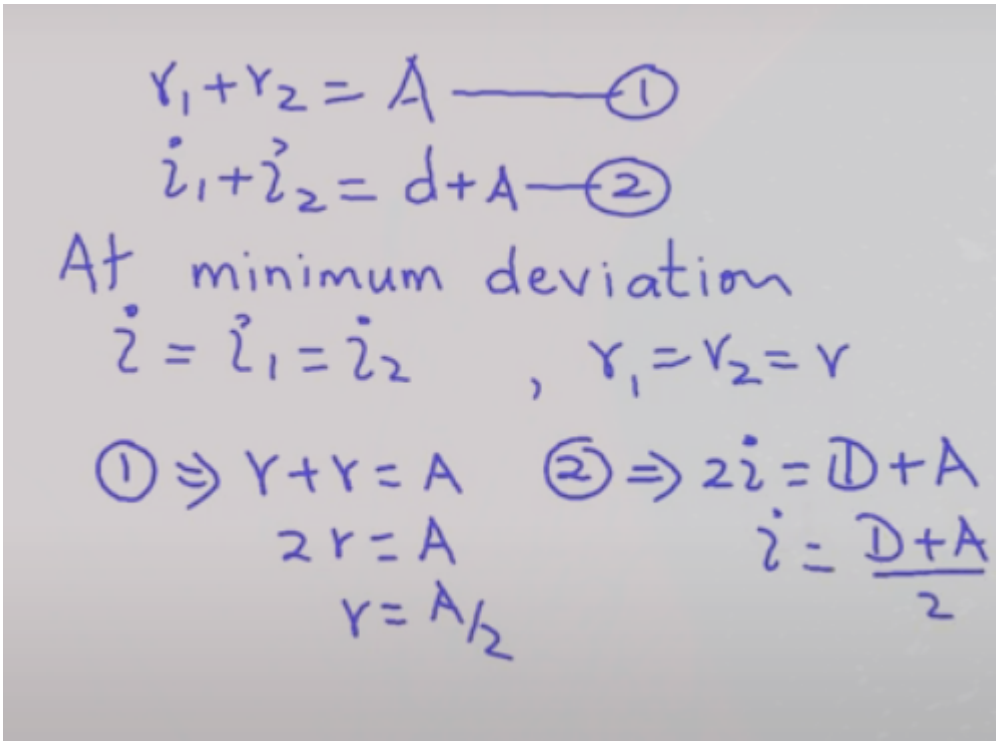
- Initial setup



> When keeping the prism for multiple readings, keep it with the distance of 4 cm from the previous one. This is to optimize the space of the paper

θ	i_1	i_2	d
60°	30°	76°	48°
50°	40°	58°	40°
45°	45°	52°	37°
40°	50°	49°	40°
30°	60°	40°	41°
20°	70°	35°	45°





Important point

- Why should we use an equilateral prism for this experiment?

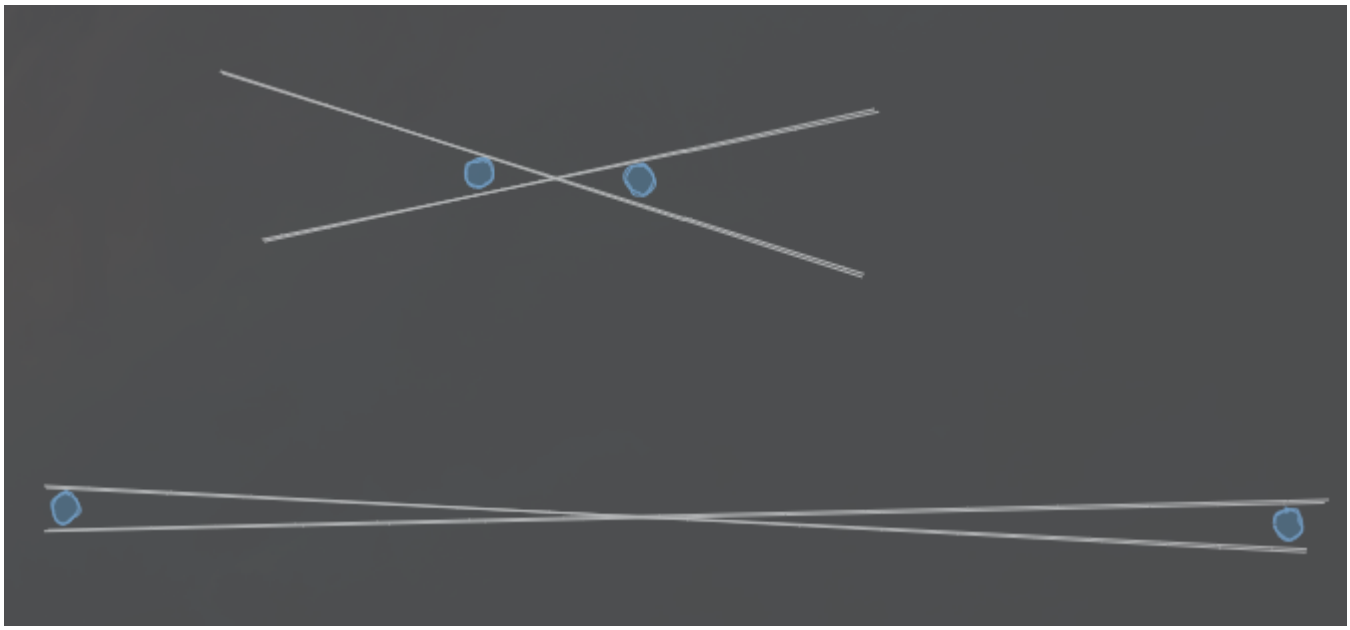
Otherwise, we won't be able to see the refraction as above

- Why can we get 2 pairs of readings by just measuring the i1 and i2 for one angle?

Because we can take the initial i1 as the i2 for a second pair by interchanging the direction of light entering the prism. This is due to the principle or reversibility of light.

- Why should we keep the pins `P1` and `P2` with maximum distance apart?

To reduce the error when drawing the lines



- When comparing 2 prisms, if the prism angle changes, what are the factors that will change with it?

Mimimum deviation will change - if A is higher, the D will be higher, when A is lower, D will be relatively lower

The way the graph of d and i is drawn changes. I.e when A = 60 the graph will start from i = 30 (becuase any incident angle before 30 degrees will result in total internal reflection) but if the A = 30, the graph for i will start from 0 as no total internal reflection will happen.

$$A - Prism\ Angle$$
$$D - Diviation$$

$$A \propto D$$

refractive index to be 1.5.