A monochromatic light is incident at a certain angle on an equivalent triangle prism and suffers minimum deviation. If the refractive index of the material of the prims is $\sqrt{3}$, then the angle of incidence is?

A 30^{o}

B 45^{o}

C 90^{o}

D 60^{o}

Solution

Correct option is D)

$i = e$

$r_1 = r_2 = \frac{A}{2} = 30^{o}$

by Snell's law

$1 \times \sin i = \sqrt{3} \times \frac{1}{2} = \frac{\sqrt{3}}{2}$

$i = 60.$