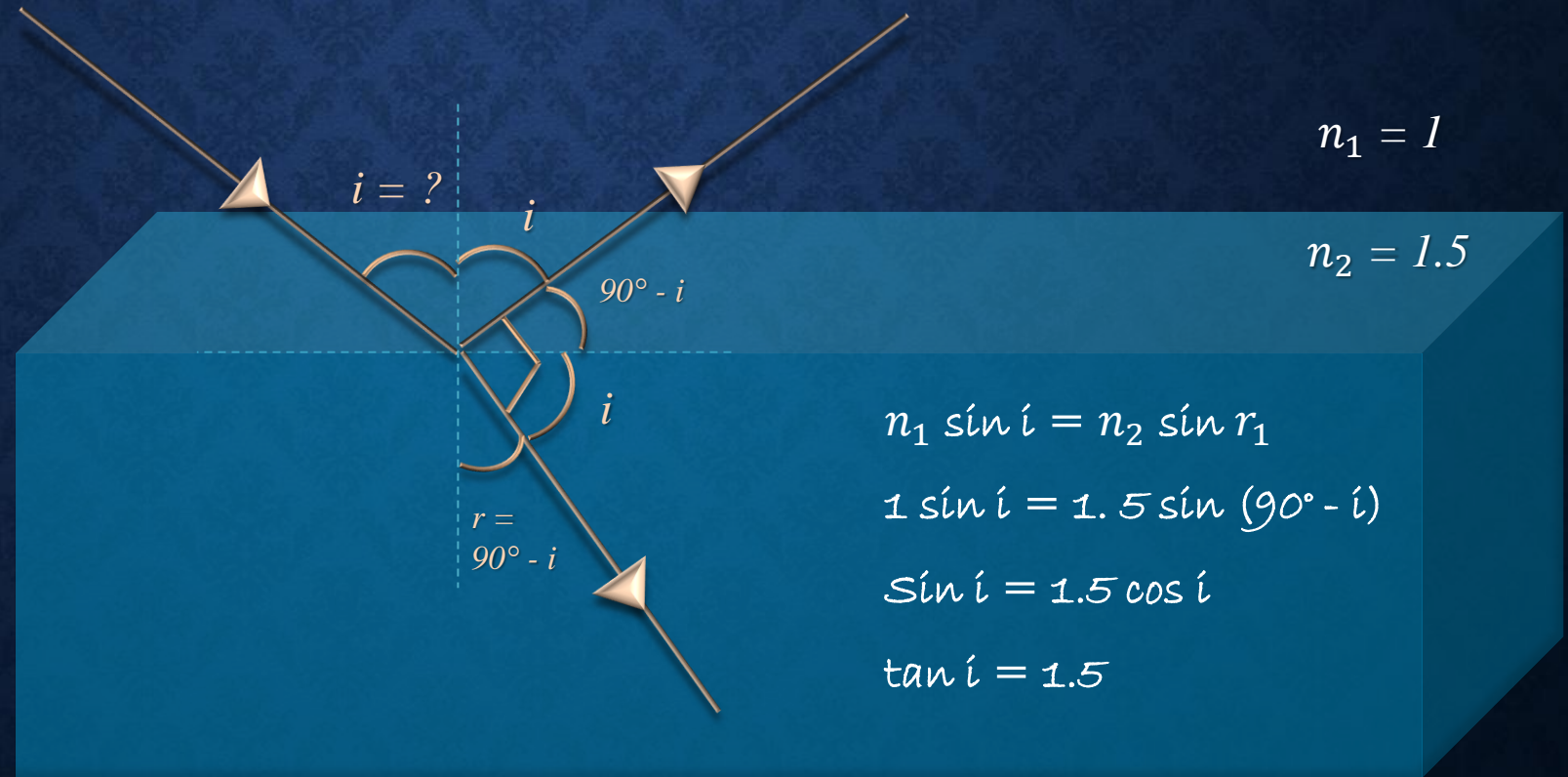


A ray of light is incident on a transparent glass-slab of refractive index 1.5. If the reflected and refracted rays are mutually perpendicular, what is the angle of incidence ?

- a) 30°
- b) $\sin^{-1} \frac{2}{3}$
- c) $\tan^{-1} \frac{2}{3}$
- ✓ d) $\tan^{-1} \frac{3}{2}$





Statement-1: There is no dispersion of light refracted through a rectangular glass slab.

Statement-2: Dispersion of light is the phenomenon of splitting of a beam of white light into its constituent colours.

- (a) Statement-1 is True, Statement-2 is True; Statement-2 is a correct explanation for Statement-1.
- (b) Statement-1 is True, Statement-2 is True; Statement-2 is NOT a correct explanation for Statement-1
- (c) Statement -1 is False, Statement-2 is True.
- (d) Statement -1 is True, Statement-2 is False.