

Answer on question # 71292, Physics / Optics

Question A glass plate 0.9cm thick has a refractive index of 1.5 how long does it take for a ray of light to pass through the plate?

Solution It takes:

$$t = \frac{d}{v} = \frac{d}{c/n} = \frac{0.9 \cdot 10^{-2}}{3/1.5 \cdot 10^8} = 0.45 \cdot 10^{-10} \text{ s}$$