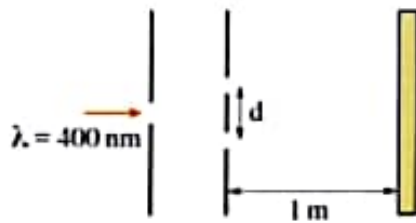
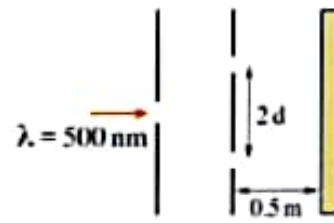


- 5 * In Young's double-slit experiment, if the distance between two coherent sources was 1.6 mm where the fringes were formed on a screen at distance 60 cm from the two coherent sources and the third bright fringe was at 0.6 mm from the central fringe, then the wavelength of the used light equals
- a 7.35×10^{-9} m b 5.33×10^{-7} m c 6.33×10^{-5} m d 4.24×10^{-4} m

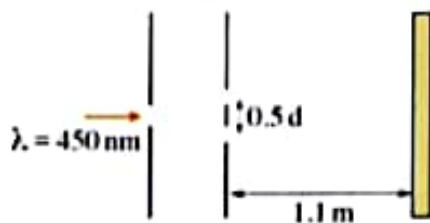
- 6 Which of the following diagrams of Young's double-slit apparatus will yield the best noticeable interference fringes?



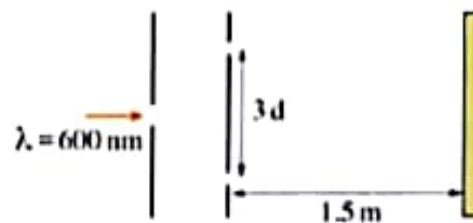
a



b



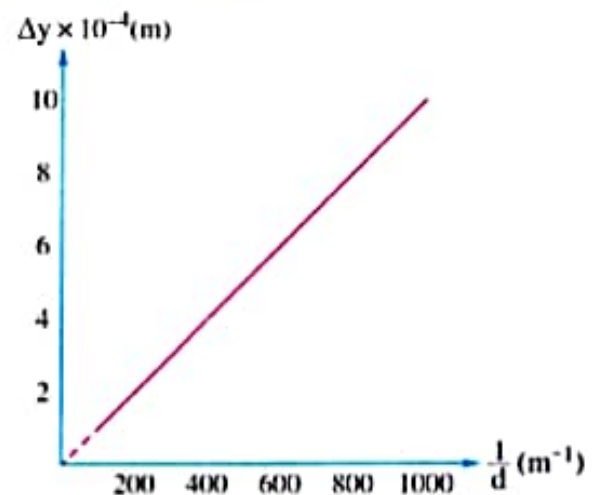
c



d

- 7 In Young's double-slit experiment, if $R = 10^4 d$, then
- a $\Delta y = \lambda$ b $\Delta y = 10^4 \lambda$ c $\Delta y = 10^{-4} \lambda$ d $\Delta y = \frac{\lambda}{10}$

- 8 * The opposite graph represents the variation of the distance between two bright consecutive fringes (Δy) versus the reciprocal of the distance between the double slits ($\frac{1}{d}$), if the distance between the double slit and the observation screen is 2 m, then the wavelength of the used light equals



- a 5×10^{-3} m b 10^{-6} m
c 2×10^{-6} m d 5×10^{-7} m

- 9 * In a double slit experiment, the distance between the two slits is 0.00015 m, the distance between the observation screen and the double slit is 0.75 m and the distance between two bright successive fringes is 0.002 m, then the frequency of the used light equals
- (Where: The speed of light in air = 3×10^8 m/s)

- a 2.5×10^6 Hz b 3×10^7 Hz c 5×10^{12} Hz d 7.5×10^{14} Hz