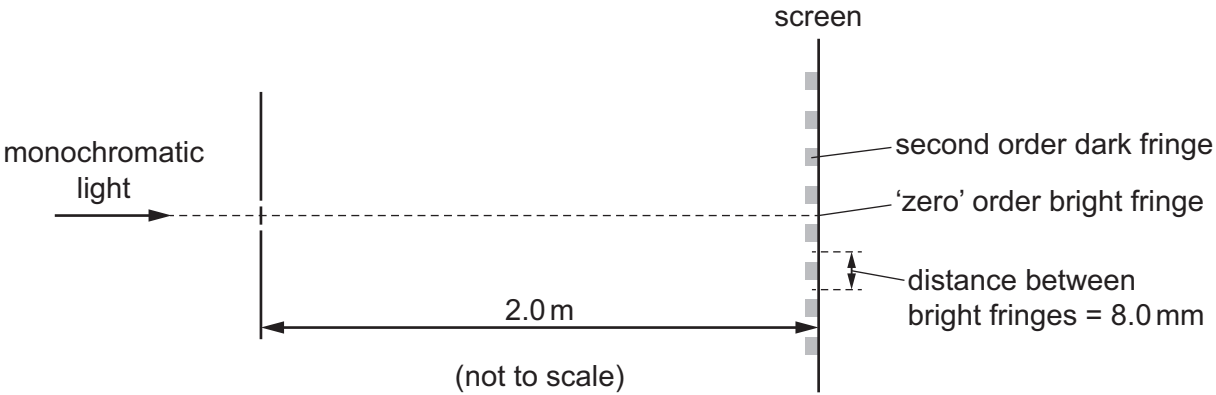
27 Monochromatic light is incident on a pair of narrow slits a distance of 0.1 mm apart. A series of bright and dark fringes are observed on a screen a distance of 2.0 m away. The distance between adjacent bright fringes is 8.0 mm.



What is the path difference between the light waves from the two slits that meet at the second order dark fringe?

A 2.0×10^{-7} m

B 4.0×10^{-7} m

C 6.0×10^{-7} m

D 8.0×10^{-7} m