

**29** Apparatus is arranged to show double-slit interference using monochromatic light. The slit separation is 0.10 mm. The distance from the double slit to the screen where the interference pattern is observed is 2.4 m and the fringe width is 12 mm.

The distance to the screen is now changed to 1.8 m and the slit separation is doubled.

What is the new fringe width?

**A** 1.5 mm

**B** 4.5 mm

**C** 6.0 mm

**D** 9.0 mm