

- 1 A double-slit interference experiment is used to determine the wavelength of light from a monochromatic source.

The following measurements are used.

slit separation  $a = 0.50 \pm 0.02$  mm

fringe separation  $x = 1.7 \pm 0.1$  mm

distance between slits and screen  $D = 2.000 \pm 0.002$  m

What is the percentage uncertainty in the calculated wavelength?

**A** 0.1%

**B** 1%

**C** 6%

**D** 10%