

- 17** A beam of monochromatic light of wavelength  $450\text{ nm}$  passes through two narrow parallel slits in a black card in a darkened room. An interference pattern is observed on a distant screen. The distance from the centre of the pattern to the centre of the first dark region is  $1.2\text{ mm}$ .

The light source is replaced by a similar light source emitting light of wavelength  $600\text{ nm}$ .

What is the distance between adjacent fringes in the new pattern seen on the distant screen?

- A**  $0.90\text{ mm}$       **B**  $1.6\text{ mm}$       **C**  $1.8\text{ mm}$       **D**  $3.2\text{ mm}$

- 18** A stationary sound wave is formed inside an open tube of length  $0.68\text{ m}$ .