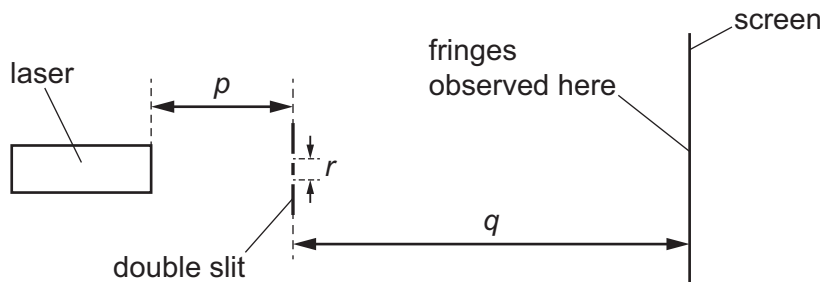


31 A student sets up an experiment to investigate double-slit interference.

The student uses light of a single wavelength from a laser to illuminate a double slit so that a pattern of interference fringes is observed on the screen.



The student finds that the fringes are very close together.

What could the student **decrease** in order to increase the separation of the fringes on the screen?

- A** the distance p from the laser to the double slit
- B** the distance q from the double slit to the screen
- C** the separation r of the slits
- D** the wavelength of the light from the laser

32 What is the critical angle for total internal reflection of light of wavelength 400 nm in a medium of refractive index n_1 incident on a medium of refractive index n_2 ?