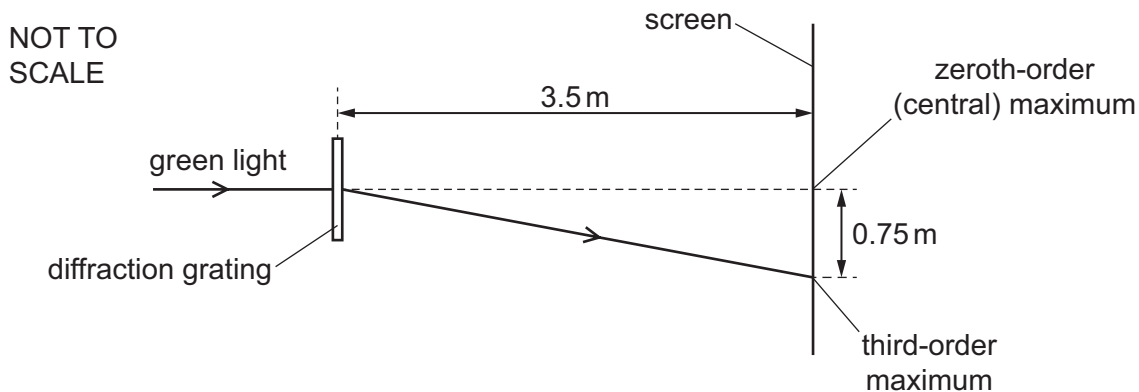


- 29** Green light of wavelength 550 nm is incident normally on a diffraction grating and produces a diffraction pattern on a screen placed 3.5 m from the diffraction grating.

The **third**-order maximum on the screen is a distance of 0.75 m from the zeroth-order (central) maximum.



What is the distance between two adjacent slits in the diffraction grating?

- A** $2.6 \times 10^{-6} \text{ m}$
- B** $7.7 \times 10^{-6} \text{ m}$
- C** $7.9 \times 10^{-6} \text{ m}$
- D** $1.0 \times 10^{-5} \text{ m}$