

27 What is an example of the diffraction of a wave?

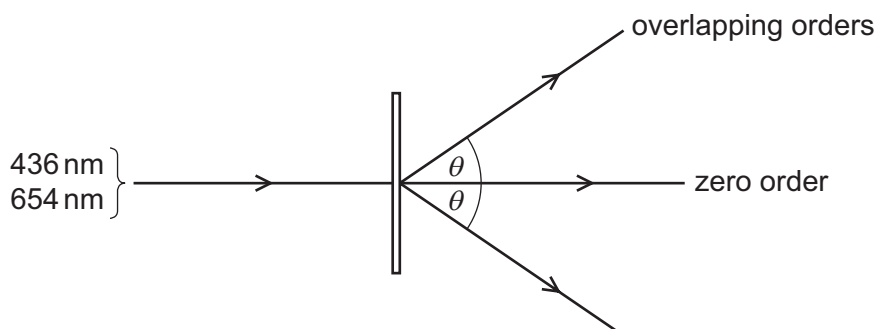
- A laser light travelling along an optic fibre
- B light waves forming images on a cinema screen
- C microwaves passing the edge of a metal plate
- D sound waves diverging as they pass through air

28 When the light from two lamps falls on a screen, no interference pattern can be obtained.

Why is this?

- A The lamps are not point sources.
- B The lamps emit light of different amplitudes.
- C The light from the lamps is not coherent.
- D The light from the lamps is white.

29 A beam of light consists of two wavelengths of 436 nm and 654 nm. A diffraction grating of $5.00 \times 10^5 \text{ lines m}^{-1}$ produces a diffraction pattern in which the second order of one of these wavelengths occurs at the same angle θ as the third order of the other wavelength.



What is the angle θ ?

- A 19.1° B 25.8° C 40.8° D 78.8°

30 Which diagram shows the electric field lines surrounding an isolated negative point charge?

