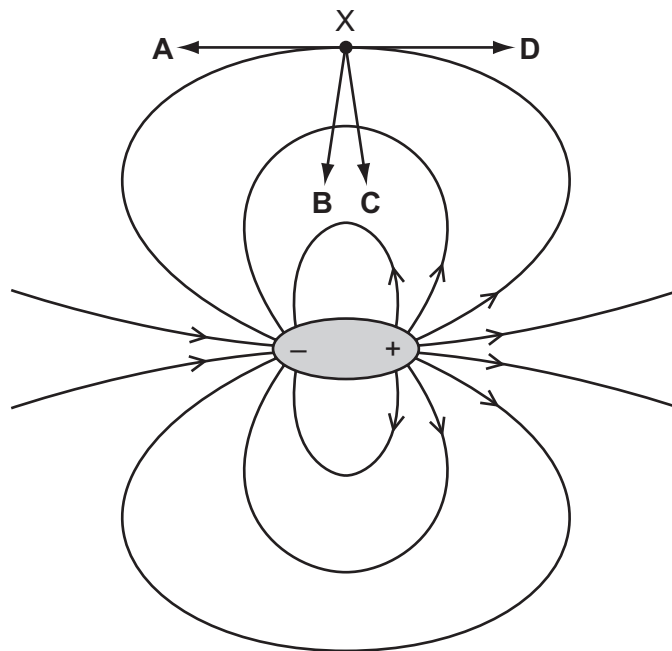


- 30** To produce a stationary wave, two waves must travel in opposite directions through the same space.

Which statement about the properties of the two waves must also be true?

- A** The waves must have equal frequency, but a different speed and wavelength.
  - B** The waves must have equal speed, but a different wavelength and frequency.
  - C** The waves must have equal speed, frequency and wavelength.
  - D** The waves must have equal wavelength, but a different speed and frequency.
- 31** A dipole is a pair of one negative charge and one positive charge of equal magnitude. The electric field of a dipole is shown below.

In which direction does the force act on an electron when at point X?



**Space for working**