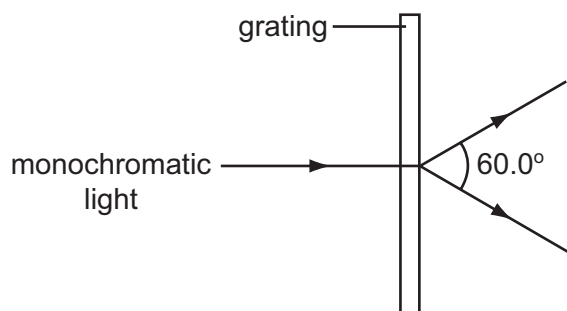


- 29** A diffraction grating is used to measure the wavelength of monochromatic light.

The spacing of the slits in the grating is  $1.15 \times 10^{-6}$  m. The angle between the first order diffraction maxima is  $60.0^\circ$ , as shown in the diagram.



What is the wavelength of the light?

- A** 287 nm      **B** 498 nm      **C** 575 nm      **D** 996 nm
- 30** A positively charged particle is projected into a region of uniform electric field  $E$ .
- Which diagram represents the motion of the particle in the electric field?

