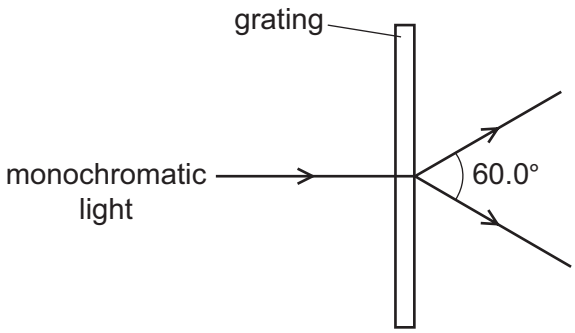
29 A diffraction grating is used to measure the wavelength of monochromatic light.

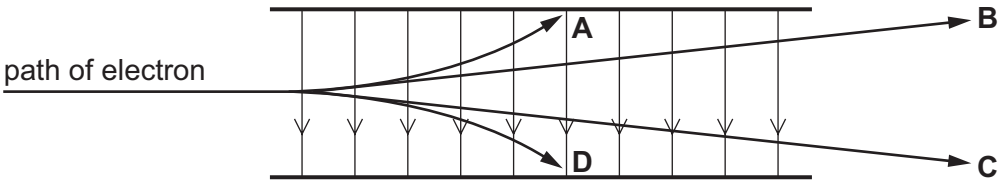
The spacing of the slits in the grating is 1.15×10^{-6} m. The angle between the first order diffraction maxima is 60.0°, as shown in the diagram.



What is the wavelength of the light?

A 288 nm **B** 498 nm **C** 575 nm **D** 996 nm

30 Which path shows a possible movement of an electron in the electric field shown?



31 The diagram shows an electric field pattern caused by two positive and two negative point charges of equal magnitude placed at the four corners of a square.

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