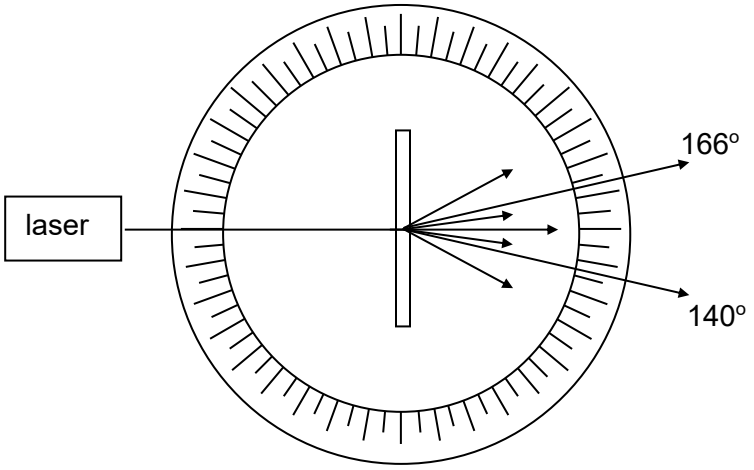
21 Light from a laser is directed normally at a diffraction grating as shown in the figure below. The diffraction grating is situated at the centre of the circular scale, marked in degrees. The readings on the scale for the second order diffracted beams are 140° and 166°. The wavelength of the laser light is 500 nm.



What is the spacing of the slits of the diffraction grating?

A 1.14×10^{-6} m

B 2.22×10^{-6} m

C 2.28×10^{-6} m

D 4.45×10^{-6} m