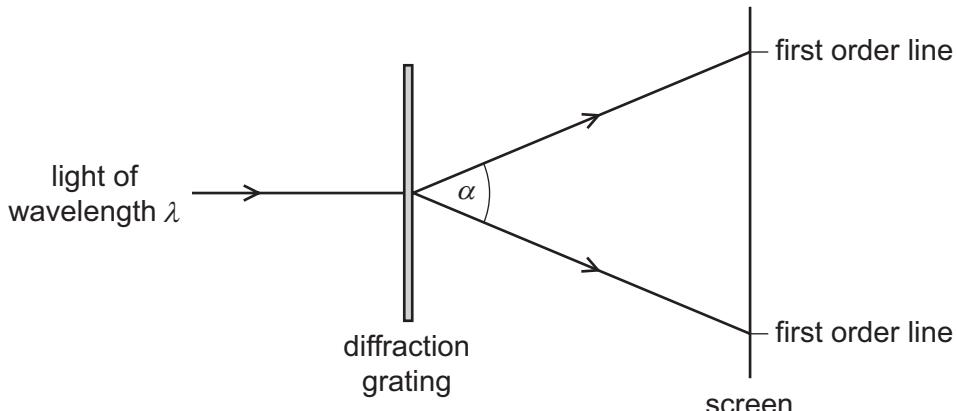


- 28** Light of wavelength λ passes through a diffraction grating with slit spacing d . A series of lines is observed on a screen.



What is the angle α between the two first order lines?

A $\sin^{-1}\left(\frac{\lambda}{2d}\right)$

B $\sin^{-1}\left(\frac{\lambda}{d}\right)$

C $2\sin^{-1}\left(\frac{\lambda}{2d}\right)$

D $2\sin^{-1}\left(\frac{\lambda}{d}\right)$

Space for working