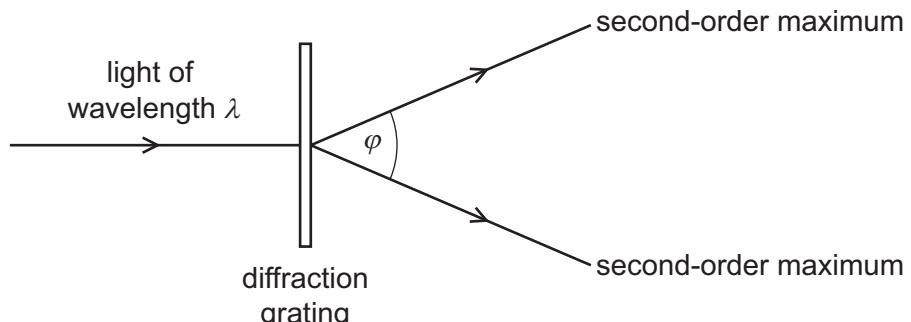


29 Light of wavelength λ is incident normally on a diffraction grating, as shown.



The angle between the two second-order maxima is φ .

Which expression gives the spacing of the lines on the diffraction grating?

A $\frac{\lambda}{\sin \varphi}$

B $\frac{\lambda}{\sin (\varphi/2)}$

C $\frac{2\lambda}{\sin \varphi}$

D $\frac{2\lambda}{\sin (\varphi/2)}$