

- 28** A diffraction grating has N lines per unit length and is placed at 90° to monochromatic light of wavelength λ .

What is the expression for θ , the angle to the normal to the grating at which the third order diffraction peak is observed?

A $\sin \theta = \frac{1}{3N\lambda}$ **B** $\sin \theta = 3N\lambda$ **C** $\sin \theta = \frac{N\lambda}{3}$ **D** $\sin \theta = \frac{3\lambda}{N}$

- 29** Light of wavelength 700 nm is incident on a pair of slits, forming fringes 2.0 mm apart on a screen