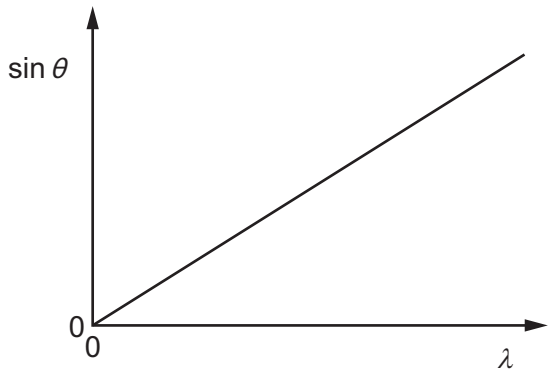
27 A diffraction grating with N lines per metre is used to deflect light of various wavelengths λ.

The graph shows a relation between the deflection angle θ and λ for different wavelengths in the n^{th} order interference pattern.



What is the gradient of the graph?

A Nn **B** $\frac{N}{n}$ **C** $\frac{n}{N}$ **D** $\frac{1}{Nn}$

28 Which wave phenomenon is **not** needed to explain the pattern of observable fringes produced by a double slit experiment?

A coherence

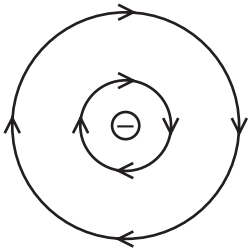
B diffraction

C interference

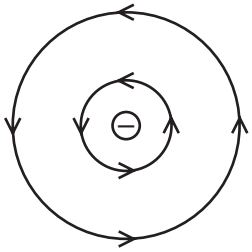
D reflection

29 Which diagram shows the electric field pattern of an isolated negative point charge?

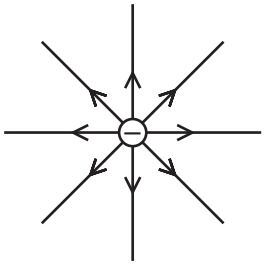
A



B



C



D