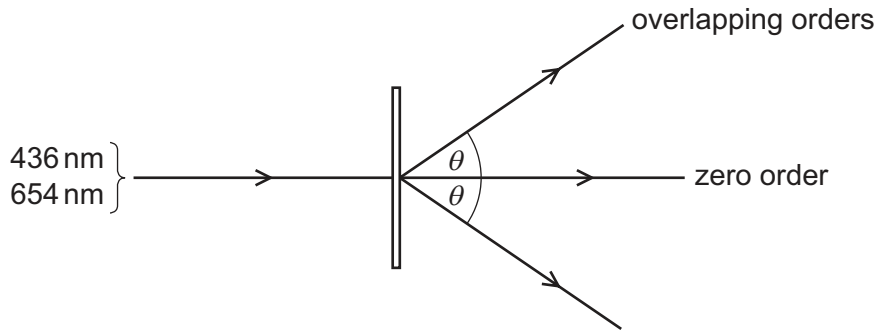


- 29** A beam of light consists of two wavelengths of 436 nm and 654 nm. A diffraction grating of $5.00 \times 10^5 \text{ lines m}^{-1}$ produces a diffraction pattern in which the second order of one of these wavelengths occurs at the same angle θ as the third order of the other wavelength.



What is the angle θ ?

- A** 19.1° **B** 25.8° **C** 40.8° **D** 78.8°

- 30** Which diagram shows the electric field lines surrounding an isolated negative point charge?