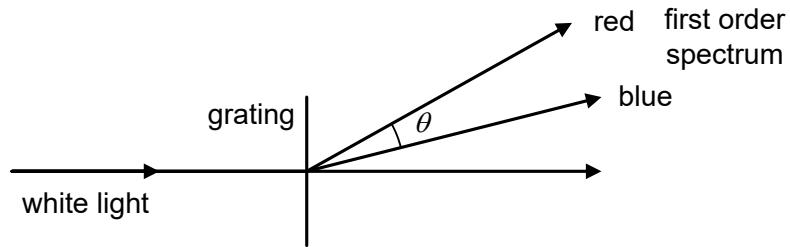


- 15** White light covers the range of wavelength from 400 nm to 700 nm. A diffraction grating with  $5.0 \times 10^5$  lines per metre is placed perpendicular to a ray of white light and produces the first order spectrum as shown.



What is the angle  $\theta$  between the red and blue ends of the spectrum?

- A**  $9.0^\circ$       **B**  $12^\circ$       **C**  $20^\circ$       **D**  $32^\circ$

