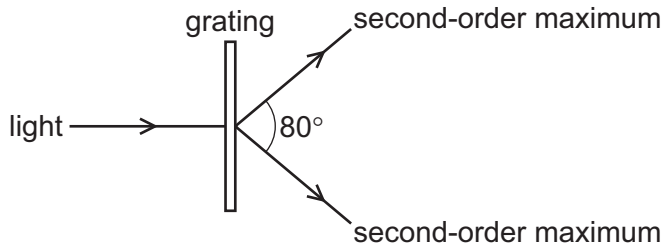


- 30** Light of wavelength $5.5 \times 10^{-7} \text{ m}$ is incident normally on a diffraction grating.



The angle between the second-order diffraction maxima is 80° , as shown.

What is the number of lines per metre of the diffraction grating?

- A** 5.8×10^5 lines per metre
- B** 9.0×10^5 lines per metre
- C** 1.2×10^6 lines per metre
- D** 2.3×10^6 lines per metre