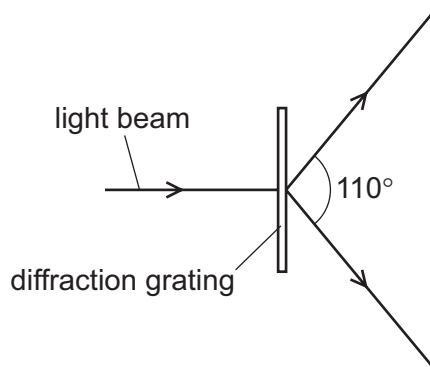


- 29 A beam of light from a laser is incident normally on a diffraction grating.



The diagram shows only the **second**-order maxima that are produced.

The grating has a line spacing of 1.0×10^{-6} m. The angle between the two second-order maxima is 110° .

What is the wavelength of the light?

- A** 4.1×10^{-7} m
B 4.7×10^{-7} m
C 8.2×10^{-7} m
D 9.4×10^{-7} m
- 30 The electric current in a metal wire is 4.0 mA.
- How many electrons pass a fixed point in the wire in a time of 10 hours?
- A** 2.5×10^{17} **B** 2.5×10^{20} **C** 9.0×10^{20} **D** 9.0×10^{23}
- 31 What is the definition of the potential difference across an electrical component?
- A** the charge per unit time passing through the component
B the energy transferred per unit charge
C the force per unit charge
D the resistance per unit current
- 32 Which graph shows the I – V characteristic of a filament lamp?

