17 A beam of red light of wavelength 720 nm is incident normally on a diffraction grating and produces a diffraction pattern on a screen placed parallel to the grating.

The beam of red light is replaced with a beam of electromagnetic radiation of wavelength *X*, which is incident normally on the same diffraction grating.

The third-order maximum for the electromagnetic radiation of wavelength *X* is at the same position on the screen as the second-order maximum for the red light.

What is wavelength *X*?

A 480 nm **B** 540 nm **C** 960 nm **D** 1100 nm