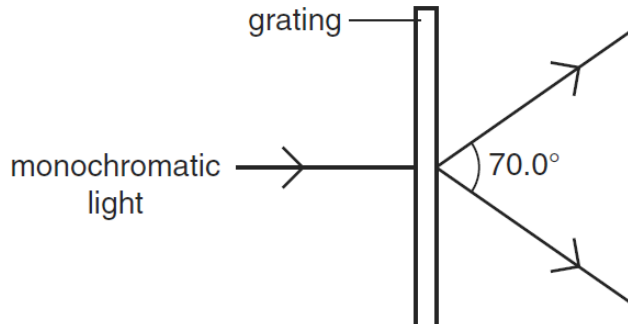


- 16** A diffraction grating is used to measure the wavelength of monochromatic light, as shown in the diagram below.



The diffraction grating has a line density of 1200 per mm. The angle between the first order diffraction maxima is 70.0° .

What is the wavelength of the light?

- A** 239 nm **B** 478 nm **C** 630 nm **D** 783 nm

- 17** A monochromatic light source is used to illuminate a double-slit interference experiment. The distance between the two slits is 0.5 mm. The distance to the screen is 2.0 m. The distance between the central maximum and the first order maximum is 4.0 mm. What is the wavelength of the light?