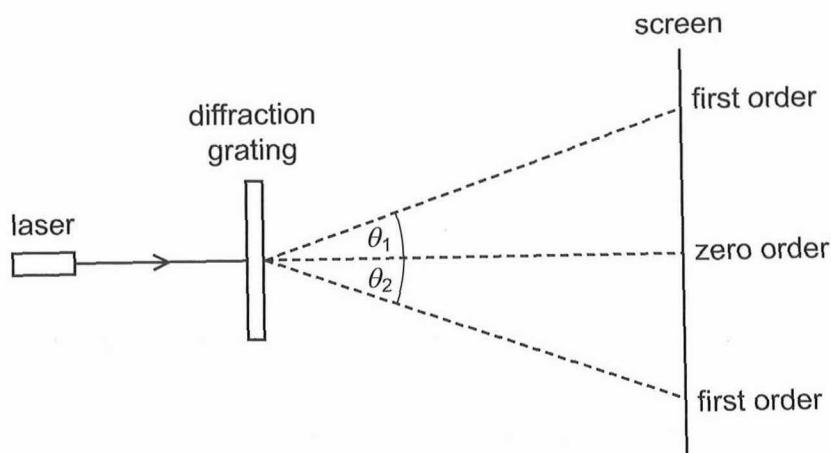


**21** A student uses a diffraction grating to determine the wavelength of the light emitted by a laser.

The orders of the light diffracted by the grating are viewed on a screen as shown.



The student notices that the angles  $\theta_1$  and  $\theta_2$  for the first order diffracted light are not quite equal.

What is an explanation for this difference?

- A** The laser light contains two wavelengths of light.
- B** The laser light is not normal to the diffraction grating.
- C** The screen has been placed too far from the grating.
- D** The spacing between the lines on the grating is not constant.