

22 Monochromatic light of wavelength 590 nm is incident normally on a diffraction grating. The angle between the two second-order diffracted beams is 43° .

What is the spacing of the lines on the grating?

A $0.87 \mu\text{m}$

B $1.6 \mu\text{m}$

C $1.7 \mu\text{m}$

D $3.2 \mu\text{m}$