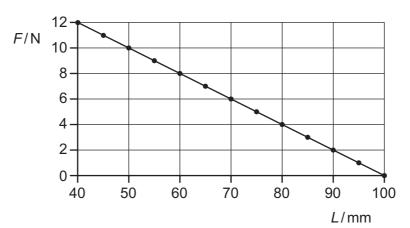
**21** A spring is compressed by a force. The graph shows the compressing force F plotted against the length L of the spring.



What is the spring constant of this spring?

- **A**  $0.2\,\mathrm{N}\,\mathrm{m}^{-1}$
- **B** 5 N m<sup>-1</sup>
- **C** 100 N m<sup>-1</sup>
- **D**  $200 \,\mathrm{N}\,\mathrm{m}^{-1}$
- **22** Using monochromatic light, interference fringes are produced on a screen placed a distance *D* from a pair of slits of separation *a*. The separation of the fringes is *x*.

Both a and D are now doubled.

What is the new fringe separation?

- A  $\frac{x}{2}$
- **B** *x*
- **C** 2*x*
- **D** 4x

Space for working