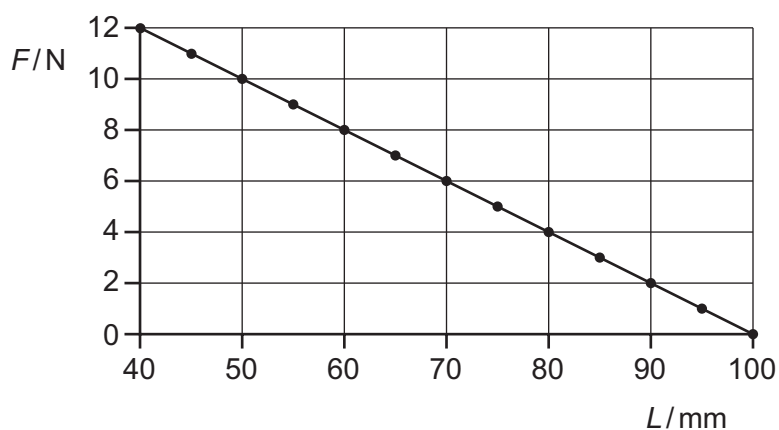


- 21 A spring is compressed by a force. The graph shows the compressing force  $F$  plotted against the length  $L$  of the spring.



What is the spring constant of this spring?

- A  $0.2 \text{ N m}^{-1}$       B  $5 \text{ N m}^{-1}$       C  $100 \text{ N m}^{-1}$       D  $200 \text{ N m}^{-1}$
- 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  $2x$       D  $4x$

Space for working