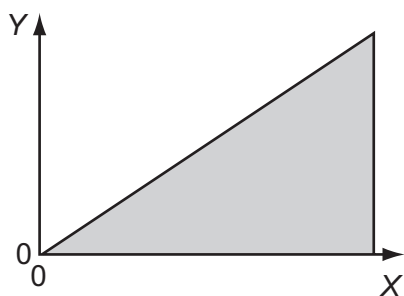


- 22** The graph shown was plotted in an experiment on a metal wire.



The shaded area represents the total strain energy stored in stretching the wire.

How should the axes be labelled?

| | Y | X |
|----------|--------|-----------|
| A | force | extension |
| B | mass | extension |
| C | strain | energy |
| D | stress | strain |

- 23** Nylon breaks when the stress within it reaches 1×10^9 Pa.

Which range includes the heaviest load that could be lifted by a nylon thread of diameter 1 mm?

- A** 2 N to 20 N
 - B** 20 N to 200 N
 - C** 200 N to 2000 N
 - D** 2000 N to 20 000 N
- 24** Which observation indicates that sound waves are longitudinal?
- A** Sound can be reflected from a solid surface.
 - B** Sound cannot be polarised.
 - C** Sound is diffracted around corners.
 - D** Sound is refracted as it passes from hot air to cold air.