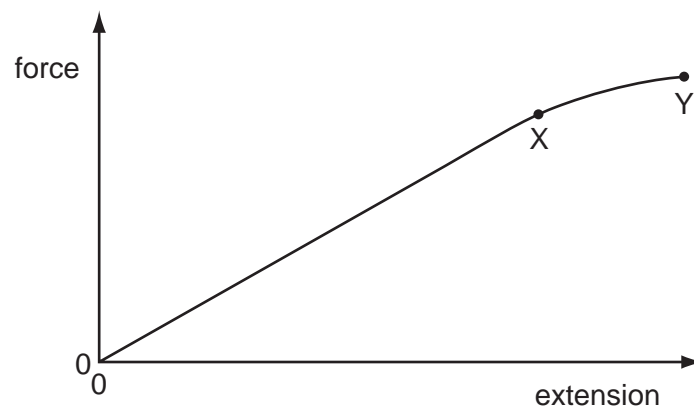


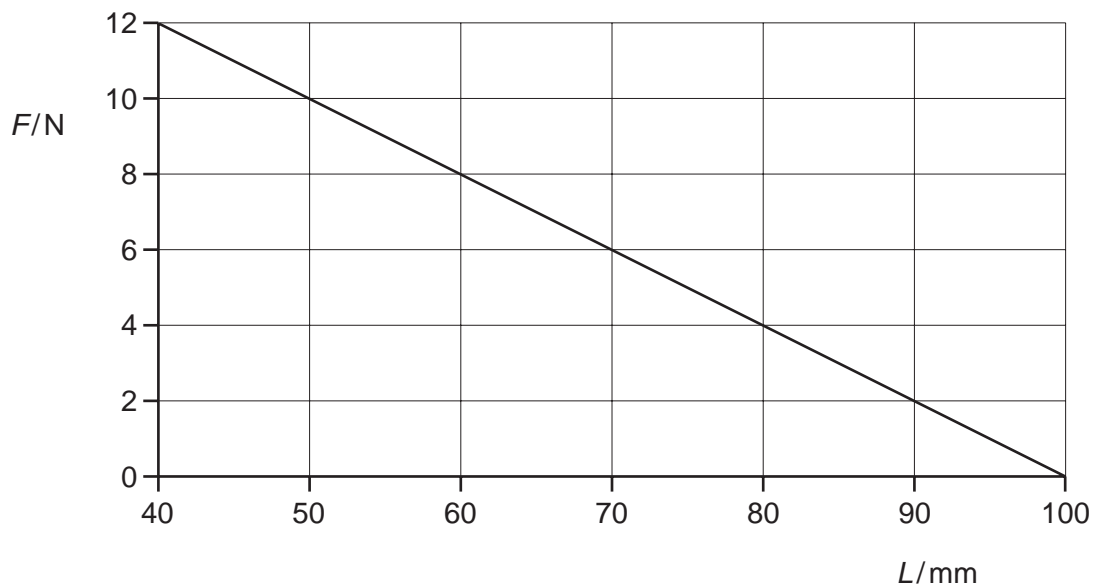
- 22** A sample of metal is subjected to a force which increases to a maximum value and then decreases back to zero. A force-extension graph for the sample is shown.



When the sample contracts it follows the same force-extension curve as when it was being stretched.

What is the behaviour of the metal between X and Y?

- A** both elastic and plastic
 - B** elastic but not plastic
 - C** plastic but not elastic
 - D** not elastic and not plastic
- 23** A spring of original length 100 mm is compressed by a force. The graph shows the variation of the length L of the spring with the compressing force F .



What is the energy stored in the spring when the length is 70 mm?

- A** 0.090 J
- B** 0.21 J
- C** 0.27 J
- D** 0.63 J