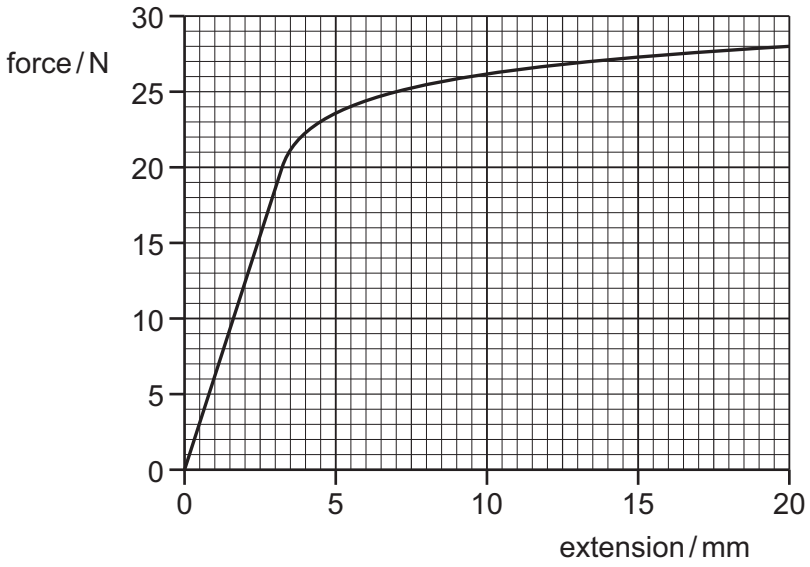
24 The graph is a force-extension graph for a wire that is being stretched.



How much work needs to be done by the tensile force, to two significant figures, to cause an extension of 7.0 mm?

A 0.088 J **B** 0.12 J **C** 0.53 J **D** 120 J

25 A wire stretches 8 mm under a load of 60 N.

A second wire of the same material, with half the diameter and a quarter of the original length of the first wire, is stretched by the same load.

Assuming that Hooke's law is obeyed, what is the extension of this wire?

A 1 mm **B** 4 mm **C** 8 mm **D** 16 mm

Space for working