21 A tensile force of 7.00 MN is applied to a sample of steel. This causes the sample to extend by 5.00 mm in the direction of the force. The sample obeys Hooke's law.

What is the work done to extend the sample?

A 17.5 J　　　　**B** 35.0 J　　　　**C** 17.5 kJ　　　　**D** 35.0 kJ