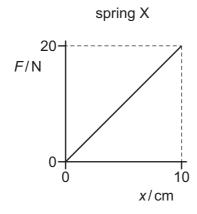
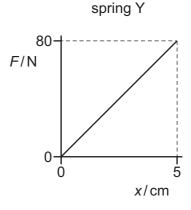
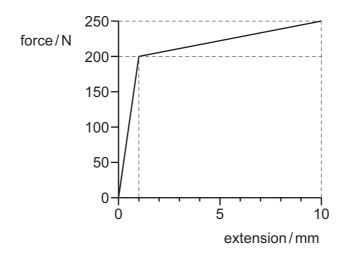
19 Two springs X and Y stretch elastically. The graphs show the variation with extension *x* of the force *F* applied to each spring.





Which statement is correct?

- A When each spring is given the same extension, the energy stored in Y is 4 times the energy stored in X.
- **B** When each spring is given the same extension, the energy stored in Y is 8 times the energy stored in X.
- **C** When the same force is applied to each spring, the energy stored in Y is 4 times the energy stored in X.
- **D** When the same force is applied to each spring, the energy stored in Y is 8 times the energy stored in X.
- 20 The diagram shows the force-extension graph for a steel wire, up to its breaking point.



What is the best estimate of the work done to break the wire?

- **A** 2.1 J
- **B** 2.3 J
- **C** 2.4 J
- **D** 2.5 J