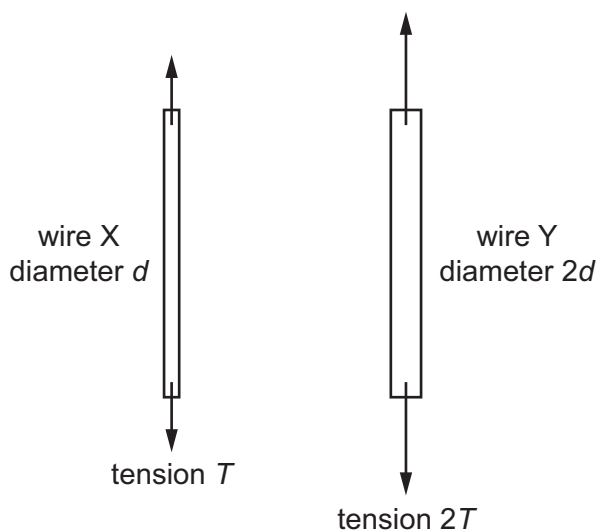


- 18 Two wires X and Y are made from the same material. Wire Y has twice the diameter and experiences twice the tension of wire X. The wires obey Hooke's law and have the same original length.



Wire X has extension  $e$ .

What is the extension of wire Y?

- A  $\frac{e}{4}$       B  $\frac{e}{2}$       C  $e$       D  $2e$
- 19 What is represented by the gradient of a graph of force (vertical axis) against extension (horizontal axis) for a wire obeying Hooke's law?
- A elastic limit  
B spring constant  
C stress  
D Young modulus