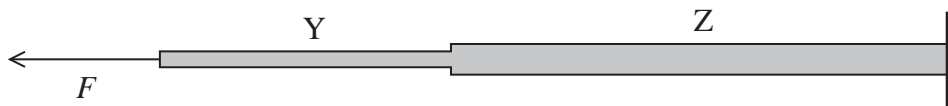


- 4 A wire Y of cross-sectional area A and length l is joined to a second wire Z of cross-sectional area $2A$ and length $2l$ as shown. Wire Z is fixed at one end and a force F is applied to the other end of wire Y.



The wires are made of the same material.

Wire Y extends by a distance x .

Which of the following is the extension of wire Z?

- ☐ A $4x$
- ☐ B $2x$
- ☐ C x
- ☐ D $\frac{x}{2}$

(Total for Question 4 = 1 mark)