

- 5 A compressive force F is applied to an object made of a material with Young modulus E . The original length of the object in the direction of the force is x , and its cross-sectional area is A .

Which expression gives the length of the object after the force is applied?

☐ A $x - \frac{AE}{Fx}$

☐ B $x + \frac{Fx}{AE}$

☐ C $x + \frac{AE}{Fx}$

☐ D $x - \frac{Fx}{AE}$

(Total for Question 5 = 1 mark)