

- 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)