21 A wire is fixed at one end and is extended by a force F_1 acting on the other end. This causes the wire to have an elastic potential energy of 0.15 J.

The force applied to the wire is now changed to a force F_2. This causes the wire to have a new elastic potential energy of 0.60 J.

The wire obeys Hooke's law.

What is the relationship between F_1 and F_2?

A $F_1 = 2F_2$ **B** $F_1 = 4F_2$ **C** $2F_1 = F_2$ **D** $4F_1 = F_2$