

3 The distance between a proton and an electron is  $r$ . The electrostatic force is  $F$ .

The distance between the proton and electron is doubled.

Which of the following is equal to the electrostatic force at this separation?

☐ **A**  $2F$

☐ **B**  $\frac{F}{2}$

☐ **C**  $\frac{F}{3}$

☐ **D**  $\frac{F}{4}$

(Total for Question 3 = 1 mark)