

- 19** Two point charges are separated by a distance of 200 mm. The force of attraction between them is  $180\ \mu\text{N}$ .

The distance between the point charges is increased to 600 mm.

What is the new force of attraction?

- A**  $20\ \mu\text{N}$                       **B**  $45\ \mu\text{N}$                       **C**  $60\ \mu\text{N}$                       **D**  $90\ \mu\text{N}$

- 20** An alpha particle is moving towards a stationary gold nucleus. The alpha particle has a kinetic energy