

**20** Two identical point charges are 9.00 mm apart in free space.

The force between them is  $2.84 \times 10^{-24}$  N.

The charges are moved to 1.00 mm apart.

What is the force between the charges now?

**A**  $3.51 \times 10^{-26}$  N

**B**  $3.16 \times 10^{-25}$  N

**C**  $2.56 \times 10^{-23}$  N

**D**  $2.30 \times 10^{-22}$  N

**21** A fixed charge is isolated in space. The electric potential at X, a distance of  $1.2 \times 10^{-5}$  m from the