## Question:

Two positive charges q1 and q2 are separated by a distance r. The charges repel each other with a force F. If the magnitude of each charge is doubled and the distance stays unchanged, what is the new force between the charges?

## Solution:

Following the Coulomb's law: $F=\frac{k q_{1} q_{2}}{r^{2}}$, we can conclude that the new force $\mathrm{f}=4 \mathrm{~F}$.

The answer:
The new force $f=4 F$.

