Problem:

How does the force b/w 2 point charges change if the dielectric constant of the medium in which they are kept increases ?

Solution:

According to Coulomb's law**:**

$$F = \frac{1}{4\pi\varepsilon_0}\frac{q_1 q_2}{\varepsilon R^2}$$

Where F – electrical force acting between two point charges;

q_1, q_2 – value of charges;

ε – dielectric constant of the medium;

R – distance between charges;

$\varepsilon_0 = 8.85 * 10^{-12}\ \frac{F}{m}$ – universal electric constant;

Thus, according to the formula provided above, when ε increases F decreases.

Answer: decreases.