

Classwork 9-11

1. What is the electric force between a proton and electron that are $1.0 \times 10^{-10} \text{ m}$ apart? Is the force attractive or repulsive?

$$\text{proton charge} = 1.60 \times 10^{-19} \text{ C}$$

$$\text{electron charge} = -1.60 \times 10^{-19} \text{ C}$$

$$\text{Coulombs constant } k = 8.99 \times 10^9 \frac{\text{N m}^2}{\text{C}^2}$$

$$\text{Coulomb's law } F_e = \frac{k q_1 q_2}{r^2}$$

