

$q_e, q_p$

Coulomb's Law (electric force)

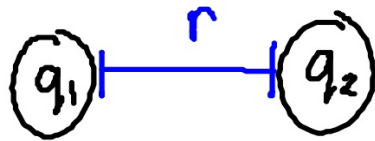
$$F_E = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r^2}$$

\*  $\epsilon_0 = 8.85 \times 10^{-12} \text{ C}^2/\text{Nm}^2$

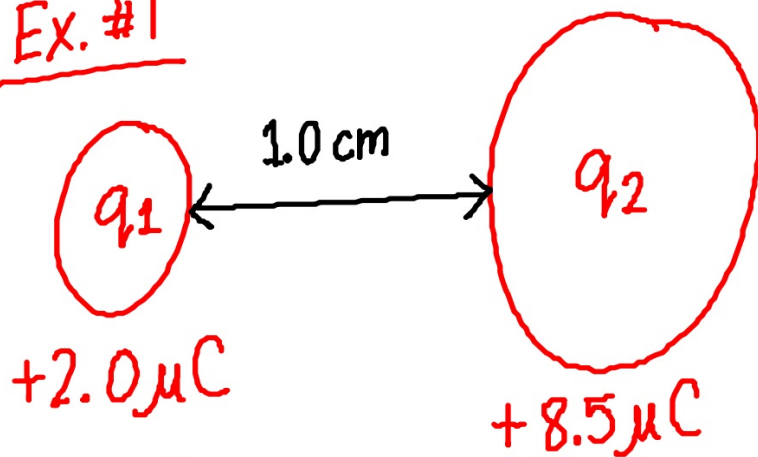
$$F_E = K \left| \frac{q_1 q_2}{r^2} \right|$$

Coulomb's  
Constant

$$K = 8.99 \times 10^9 \text{ Nm}^2/\text{C}^2$$

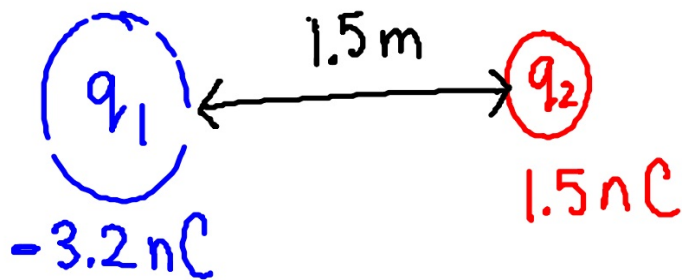


Ex. #1

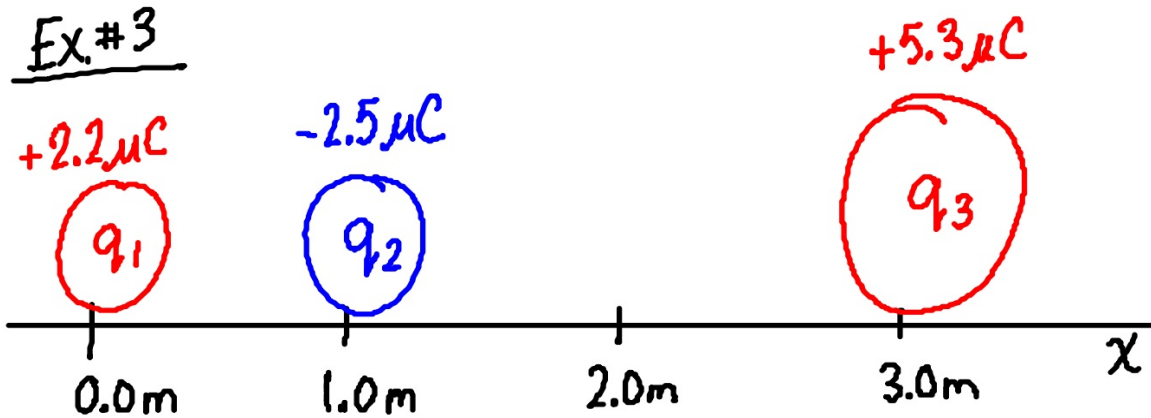


- attractive or repulsive.
- determine the magnitude of electric force.

Ex #2



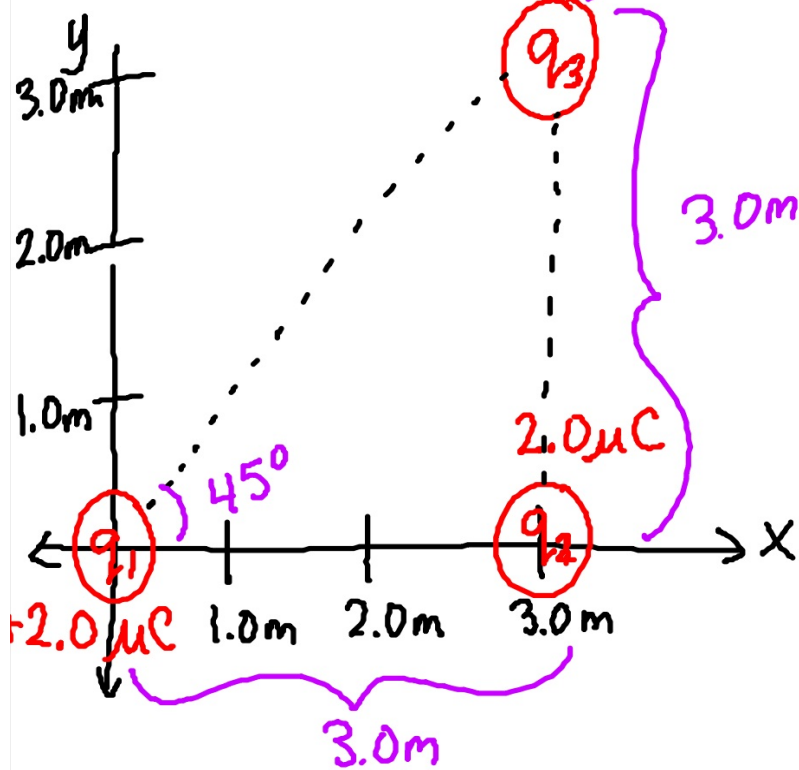
Ex.#3



Determine the magnitude and direction of the electric force on:

- charge #2 ( $q_2$ )
- charge #1 ( $q_1$ )

Ex. #4



Determine the magnitude and direction of the force on  $q_3$ .

|