Point Charges :

- extremely small particles that carry a charge

Coulomb's Law:

- Coulomb was a French physicist who determined the forces involved in the interaction between electric fields

"The force between two point charges is directly proportional to the charge on each one and inversely proportional to the square of the distance between them"

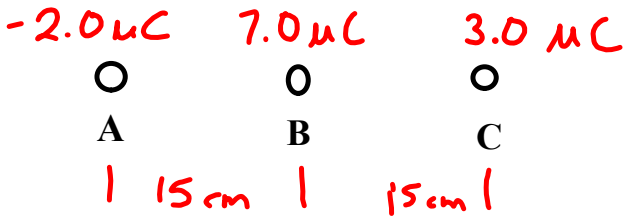
Mathematically:

$$F = \frac{kQ_1Q_2}{d^2}$$

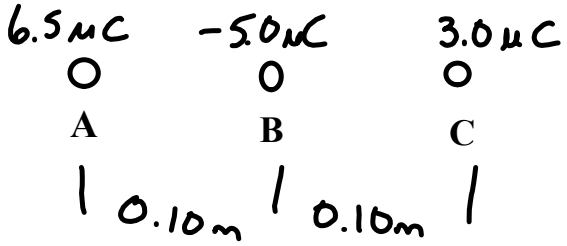
Example 1: Two objects have a force of 1.6×10^{-3} N on them from their charges when they are 1.0 cm apart. Calculate the new force if the objects are moved 3.0 cm apart.

Ex 2: Two charges of +1.9 μC are separated by 22.0 cm. What is the force on each?

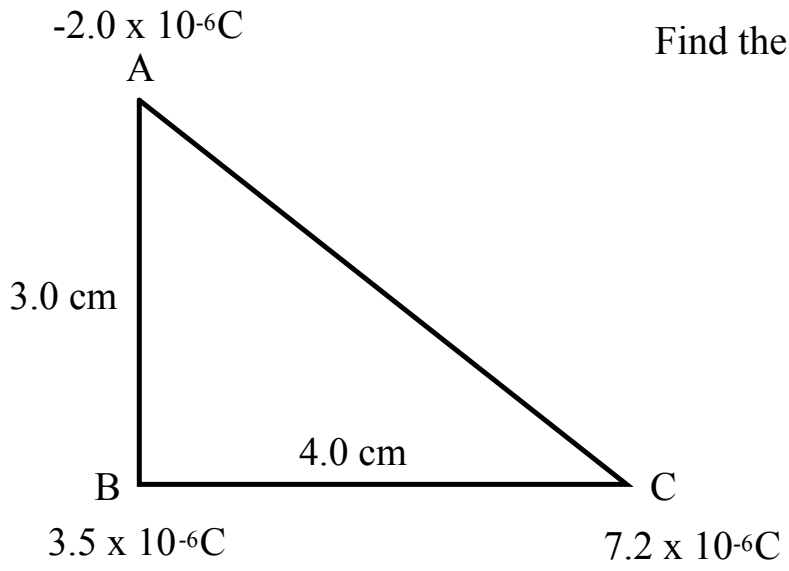
Ex 3: Find the net force acting on charge "B" in the diagram below.



Ex. 4 Find the net force on C.



Example 5



Find the net force on B.

Example 6 Calculate the net force on charge B.