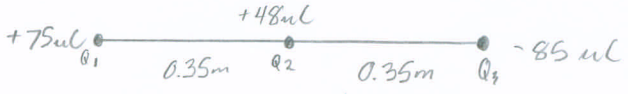
Problems

1. Ch. 16, P. 12

Given: $Q_1 = +75\,nC$
$Q_2 = +48\,nC$
$Q_3 = -85\,nC$



Find: net Force on each charge due to the other 2.

A) Lets Find F_{Q12}, meaning F exerted ON Q1 by Q2,
using Colocumb's Law: NB (r = distance, not radius)

magnitude of the Force $= F_{12} = K\frac{Q_1 Q_2}{r^2}$, where $k = 9.0 \times 10^9\ N \cdot m^2/C^2$

$$F_{12} = \frac{9.0\times10^9\ N\cdot m^2}{C^2} \Big/ \frac{+75\,nC}{(0.35m)^2} \Big/ \frac{+48\,nC}{1} \Big/ \frac{1C}{10^6\,nC} =$$

What do I do with the extra nC on top? Do I add another 10^6 nC on the bottom? That would leave F in N·C, as opposed to N.

PLZ HELP!

THX!