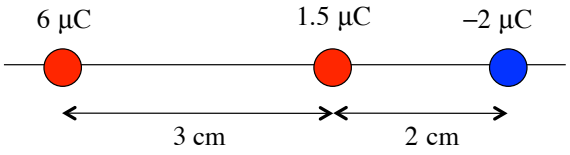
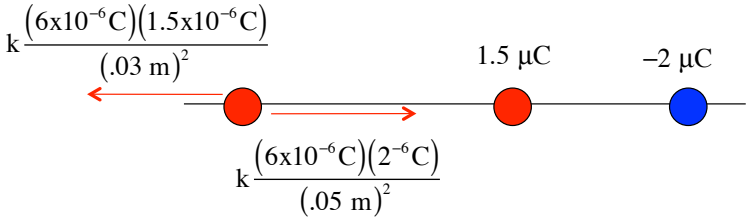
Problem 15.10

What are the forces involved?

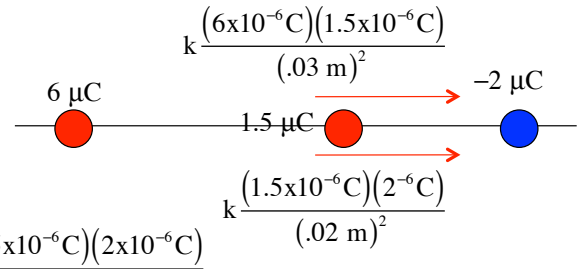


for $F_{6\ \mu C}$



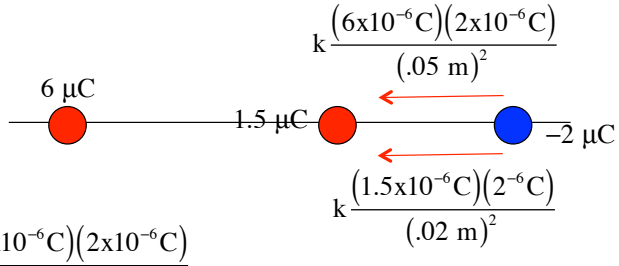
$$F_{6\ \mu C} = -k\frac{(6x10^{-6}C)(1.5x10^{-6}C)}{(.03\ m)^2} + k\frac{(6x10^{-6}C)(2^{-6}C)}{(.05\ m)^2}$$

for $F_{1.5\ \mu C}$



$$F_{1.5\ \mu C} = k\frac{(6x10^{-6}C)(1.5x10^{-6}C)}{(.03\ m)^2} + k\frac{(1.5x10^{-6}C)(2x10^{-6}C)}{(.02\ m)^2}$$

for $F_{2\ \mu C}$



$$F_{1.5\ \mu C} = k\frac{(6x10^{-6}C)(2x10^{-6}C)}{(.05\ m)^2} + k\frac{(1.5x10^{-6}C)(2x10^{-6}C)}{(.02\ m)^2}$$