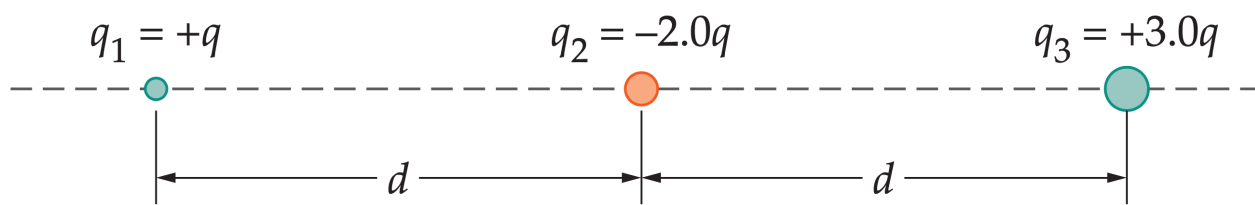At what separation is the electrostatic force between a +11.2 μC point charge and a +29.1 μC point charge equal in magnitude to 1.57 N?
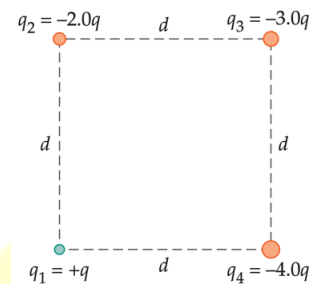
Given that $q = +12\ \mu C$ *and* $d = 19\ cm$, *(a) find the direction and magnitude of the net electrostatic force exerted on the point charge* q_2 *in Figure 19–29. (b) How would your answers to part (a) change if the distance d were tripled?*

$q_1 = +q$ $\qquad\qquad$ $q_2 = -2.0q$ $\qquad\qquad$ $q_3 = +3.0q$

$\longleftarrow\ d\ \longrightarrow$ $\qquad$ $\longleftarrow\ d\ \longrightarrow$

Find the direction and magnitude of the net electrostatic force exerted on the point charge q_2 in Figure 19–32. Let $q = +2.4\mu C$ and $d = 33\ cm$.