

Permittivity of free space is $k_e = 8.99 \times 10^9 \text{ N}\cdot\text{m}^2/\text{C}^2$.

Three charged particles are placed on the vertices of an equilateral triangle. Two of these particles located at the origin and on the x-axis at a distance 0.500 m from the first one in the positive x direction, have charges $q_1 = 2.00 \mu\text{C}$ and $q_2 = -4.00 \mu\text{C}$, respectively. The charge of the third object which is above the other two is $q_3 = 7.00 \mu\text{C}$. What are x and y components of the resultant (electric) force exerted on the charge at the origin by the other two charges?

