S.P. 3-A

Find the force $\mathbf{F}_1$ exerted on point charge $Q_1 = 2\mu C$ at location (1,1,1) [mm] by point charges $Q_2 = -4[\mu C]$ at location (-1,0,2) [mm] and $Q_3 = -3[\mu C]$ at location (3,2,-4) [mm]

S.P. 3-B

Two identical balls are suspended from massless strings in air, as shown below. If the balls each have identical charges Q and masses 2.0 [g = 10^{-3} kg], determine the value of Q.