

S.P. 3-A

Find the force \mathbf{F}_1 exerted on point charge $Q_1 = 2\mu\text{C}$ at location $(1,1,1)$ [mm] by point charges $Q_2 = -4[\mu\text{C}]$ at location $(-1,0,2)$ [mm] and $Q_3 = -3[\mu\text{C}]$ 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] (equal to 2×10^{-3} [kg]), determine the value of Q .

