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PP A – Coulomb’s Law

1. A balloon rubbed against denim gains a charge of -8.0 μC. What is the electric force between the balloon and the denim when the two are separated by a distance of 5.0 cm? (assume that the charge are located at a point)
2. Two identical conducting spheres are placed with their centers 0.30 m apart. One is given a charge of +12 x 10-9 C and the other is given a charge of -18 x 10-9C.
3. Find the electric force exerted on one sphere by the other
4. The spheres are connected by a conducting wire. After equilibrium has occurred, find the electric force between the two spheres.

1. Two electrostatic point charge of +60.0μC exert a repulsive force on each other of 175 N. What is the distance between the two charges?