1. A plastic rod is charged to -90 nC by rubbing. How many electrons have been added to the rod?

2. Two identical metal spheres A and B are connected by a metal rod. Both are initially neutral. $5.0 \times 10^{10}$ electrons are added to sphere A, then the connecting rod is removed. Afterward, what are the charge of sphere A and the charge of sphere B.

3. Two 5.0 g spheres are charged equally and placed 4.0 cm apart. When released, they begin to accelerate at 2 m/s$^2$. What is the magnitude of the charge on each sphere?

4. What is the magnitude of the force on -5nC charge?

5. What is the magnitude of the force on 4nC charge?

6. What is the magnitude of the force on -20 nC charge?
7. What is the magnitude of the force on the 2 nC charge?

8. Charge $q_2$ is in static equilibrium. What is $q_1$?

9. Two 5.0 g spheres on 2.0-m-long threads repel each other after being equally charged. What is the charge $q$?