Prelab 4: Coulomb's Law and Electric Potential

Print Name   _____

Section _____   Date _____   TA _____

Lab Partner   _____

1. A particle with a charge of +8 µC is placed 6 cm away from a second particle with a charge of -7 µC. Calculate the electrostatic force exerted on the second particle by the first particle. **Show formulas and calculations.**

2. Three particles with charges q_1 = +3Q, q_2 = -6Q, and q_3 = -3Q are situated around the origin, with locations q_1 at (1,1), q_2 at (-1,1), and q_3 at (-1,-1). What is the value of the net electric field, $\vec{E}$ located at the origin?