

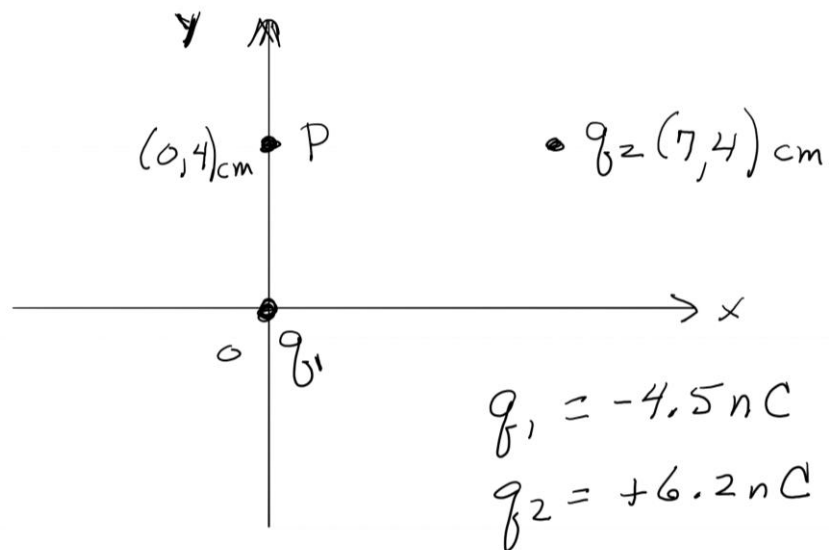
General Physics II Assignment #6

Name _____

1) Two point charges are placed on a xy coordinate system as shown below. Determine the magnitude and direction of the electric force that q_1 exerts on q_2 .

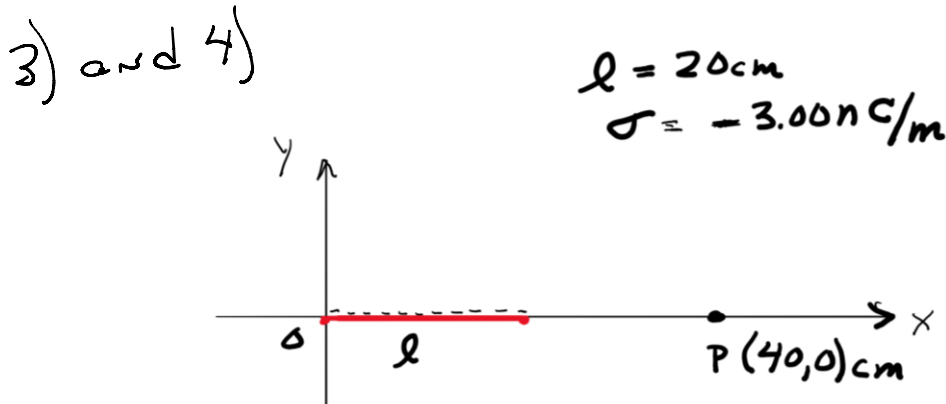
2) Two point charges are placed on a xy coordinate system as shown in question 1. Determine the magnitude and direction of the electric field produced by the charges at point P.

1) and 2)

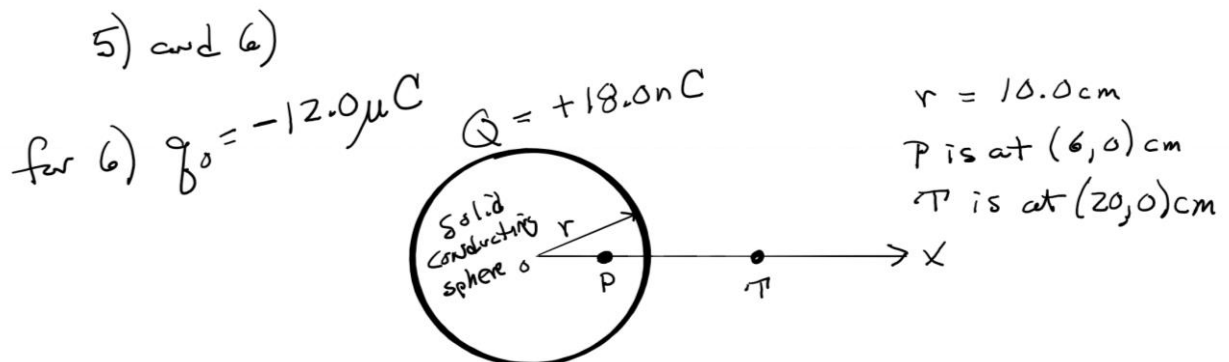


3) A line of charge of length l and having a linear charge density σ is placed on an x-axis of a xy coordinate system as shown below. Determine the Electric Field vector at point P.

4) A small charge $q = -20.0 \text{ nC}$ is placed at point P in question 3. Determine the electric force on q .

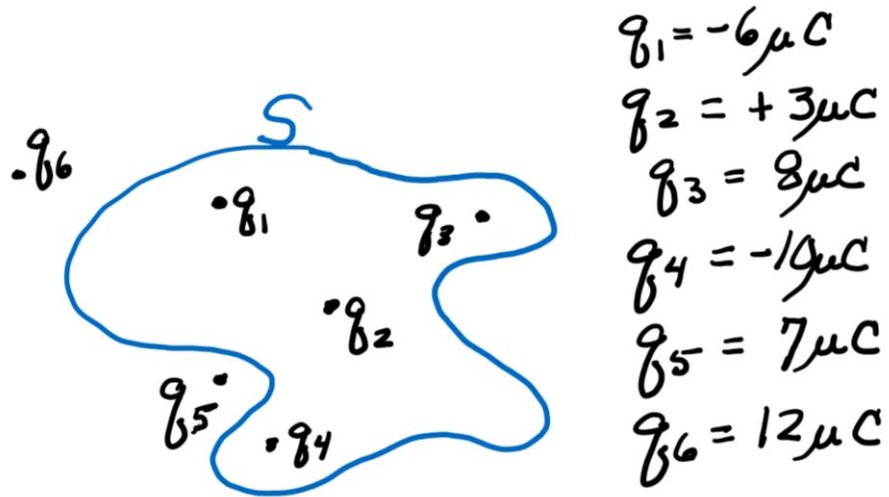


5) A solid conducting sphere of radius r and having total charge Q is shown below. A) Determine the Electric Field at point P. b) determine the Electric Field at Point T.



6) a) A small charge q_0 is placed at point P in question 5. Determine the electric force on q_0 . b) A small charge q_0 is placed at point T in question 5. Determine the electric force on q_0 .

7) Determine the net electric flux through the enclosed surface S in the picture below.



8) Determine the electric flux through the area surface A in the picture below.

