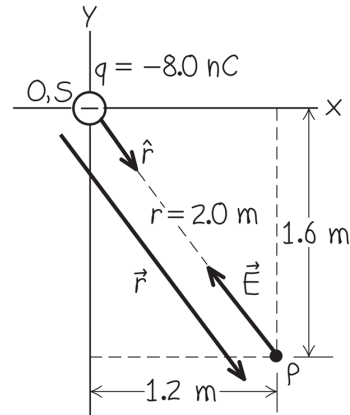# Sample Problem Set 2

(Pertinent to Section 22.4)

SP 2.1

A point charge $q = -8.0$ nC is located at the origin. Find the electric-field vector at the field point $x = 1.2$ m, $y = -1.6$ m.

SP 2.2

Charge $q_1 = 7.00\ \mu C$ is at the origin, and charge $q_2 = -5.00\ \mu C$ is on the x-axis, 0.300 m from the origin

(a) Find the magnitude and direction of the electric field at point P, which has coordinates $(0, 0.400)$ m.

(b) Find the force on a charge of 2.00×10^{-8} C placed at P.