

Written Homework One:

Physics 201

Spring 2018

1. Find the electric field at the point  $x=3\text{m}$ ,  $y=5\text{m}$ , due to three point charges:
  - a. Point charge a:  $q_a = 6\text{nC}$ ,  $x=0$ ,  $y=7\text{m}$
  - b. Point charge b:  $q_b = -4.5\text{ nC}$ ,  $x=6\text{m}$ ,  $y=0\text{m}$ , and
  - c. Point charge c:  $q_c = 2\text{nC}$ ,  $x=2\text{m}$ ,  $y=3\text{m}$ .

Advice: first, draw the picture, carefully. Next, you may wish to find the magnitude of each electric field contribution at the point of interest. Finally, you may wish to find all the angles and break each into x and y components.

Due date: next Friday, in lab.