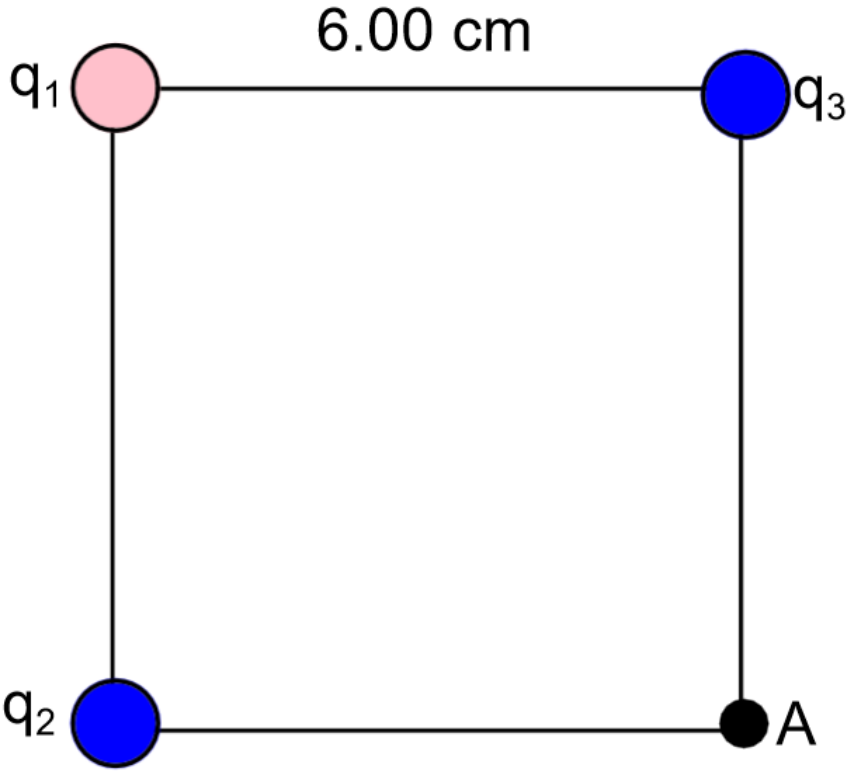
Phys 621
Electric Field & Potential Quiz
Jan 2022




**Report all numerical answers to 3 significant figures no matter what.**

For the square above, $q_1$ = 2.60 µC , $q_2$ = -4.90 µC, and $q_3$ = -3.80 µC .

A) What is the Electric field vector located at point A? (Don't have to draw FBD)

B) What is the Electric Potential at point A?

C) Assume there is another point nearby (Point B) that has an Electric Potential of -400 kV. A single proton is going to start at point A and then it will end at point B.

   i. Will this charge gain Kinetic energy and travel there naturally, or will it require Work to forcibly move it there?

   ii. What amount of energy is transferred during this trip? (Could be a change in kinetic or could be Work)