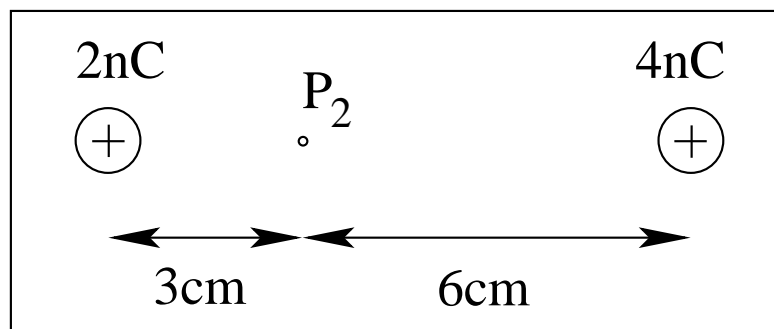
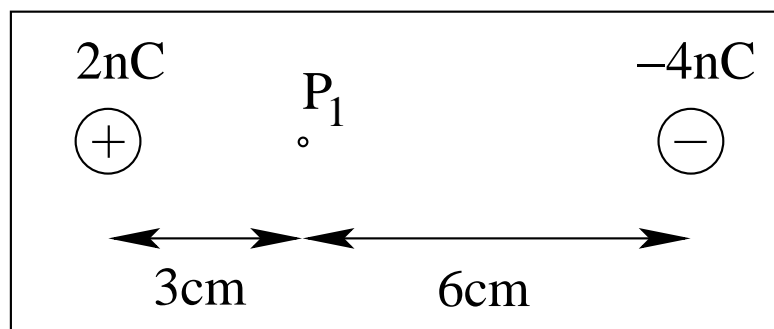


Electric Potential and Potential Energy: Application (8)



- (a) Is the electric potential at points P_1, P_2 **positive** or **negative** or **zero**?
- (b) Is the potential energy of a negatively charged particle at points P_1, P_2 **positive** or **negative** or **zero**?
- (c) Is the electric field at points P_1, P_2 directed **left** or **right** or is it **zero**?
- (d) Is the force on a negatively charged particle at points P_1 and P_2 directed **left** or **right** or is it **zero**?

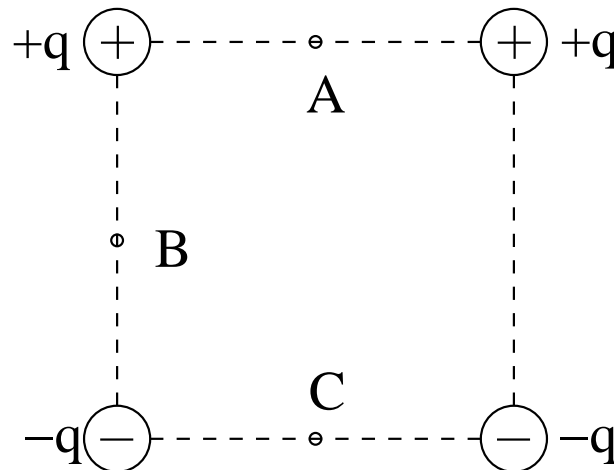


Electric Potential and Potential Energy: Application (9)



Consider four point charges of equal magnitude positioned at the corners of a square as shown. Answer the following questions for points A , B , C .

- (1) Which point is at the highest electric potential?
- (2) Which point is at the lowest electric potential?
- (3) At which point is the electric field the strongest?
- (4) At which point is the electric field the weakest?



Electric Potential and Potential Energy: Application (10)



The charged particles 1 and 2 move between the charged conducting plates A and B in opposite directions.

From the information given in the figure...

- (a) find the kinetic energy K_{1B} of particle 1,
- (b) find the charge q_2 of particle 2,
- (c) find the direction and magnitude of the electric field \vec{E} between the plates.

