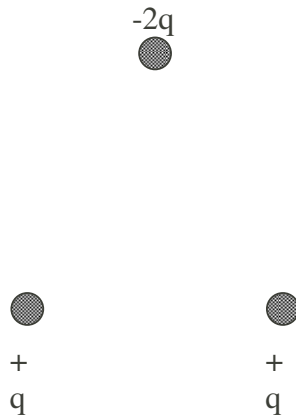
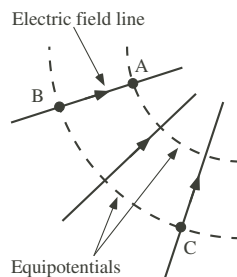


Advanced Reading Questions: Electric Field Plotting Experiment

1. In the diagram below, three point charges, with the relative magnitudes shown, lie in a plane. Sketch (and label) some of the electric field lines, and cross sections in the plane of the diagram of some of the equipotential surfaces. (Think of the analogous Geological Survey map; the negative charge will have a negative potential, and the positive charge a positive potential, with respect to infinity.)



2. In the diagram below, a charge of $q = +1.60 \times 10^{-19}$ C has an electrostatic potential energy of $+1.60 \times 10^{-18}$ J at point A and $+2.40 \times 10^{-18}$ J at point C.



- (a) What is the potential, V , at point A?
- (b) What is the potential, V , at point C?
- (c) What is the *change* in potential between points A and B?