1) Consider the diagram below. It illustrates the electric field lines in the area *between* the plates of a capacitor only. (Not the lines outside of the two plates.)

(a) Consider moving a charge from point A to point B at constant velocity. Would the work done by you be positive, negative or zero? Would the work done by the electric field be positive, negative or zero? Explain.

(b) Consider moving a charge from point B to point A at constant velocity. Would the work done by you be positive, negative or zero? Would the work done by the electric field be positive, negative or zero? Explain.