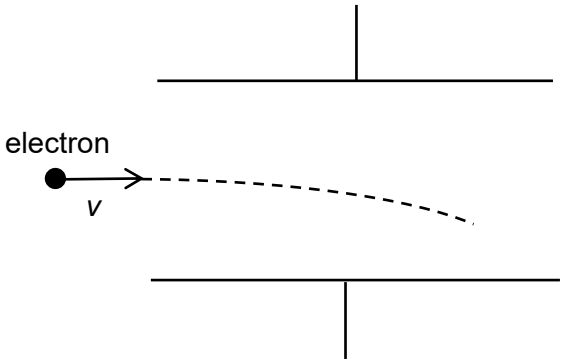
17 An electron, of velocity *v*, enters a uniform electric field between two parallel plates at right angles to the field. The region between the plates is a vacuum.

The electron experiences a vertical deflection downwards as shown.



When a proton enters the field with the same velocity *v,* it experiences a deflection upwards.

Ignoring the effects of gravitational field, which statement is incorrect?

A Both the electron and proton lose electric potential energy.

B The proton experiences a smaller absolute value of change in electric potential energy.

C The force exerted by the electric field on the proton is smaller.

D The proton gains less kinetic energy.