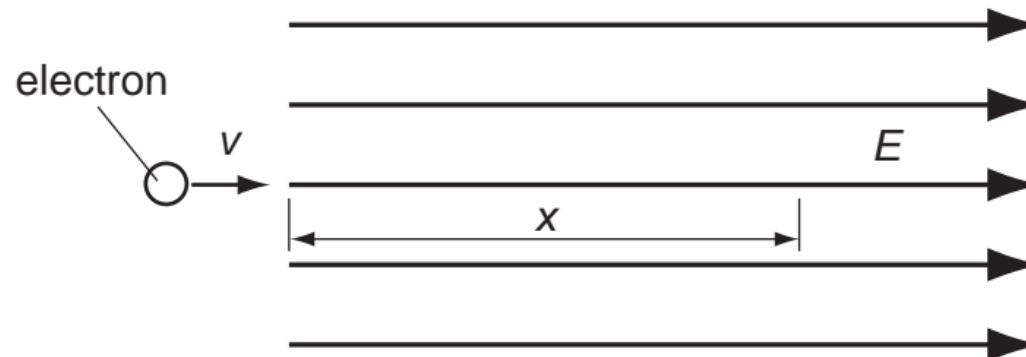


- 29 The diagram shows an electron, with charge  $e$ , mass  $m$ , and velocity  $v$ , entering a uniform electric field of strength  $E$ .



The direction of the field and the electron's motion are both horizontal and to the right.

Which expression gives the distance  $x$  through which the electron travels before it stops momentarily?

A  $x = \frac{mv}{E}$

B  $x = \frac{mv}{Ee}$

C  $x = \frac{mv^2}{2E}$

D  $x = \frac{mv^2}{2Ee}$

- 29 Which amount of charge, flowing in the given time, will produce the largest current?