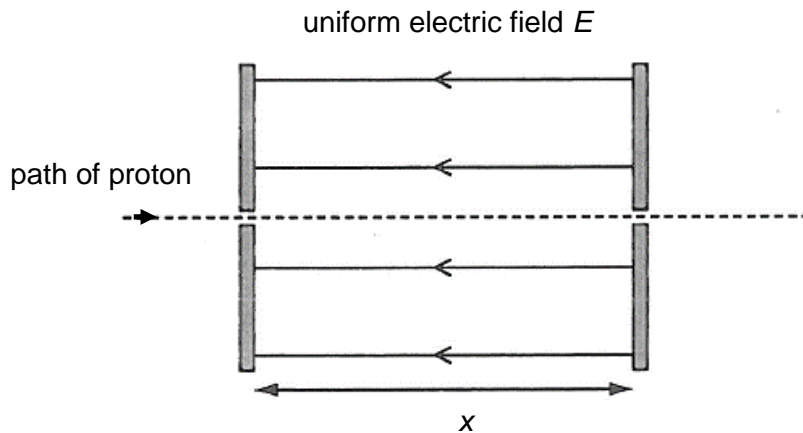


- 20 A proton of mass m and charge e travels through a uniform electric field of field strength E . It enters the field with velocity v and then travels a distance x in a direction opposite to the field, as shown.



What will be its speed when leaving the field?

- A $v + \sqrt{\frac{eEx}{m}}$ B $v - \sqrt{\frac{eEx}{m}}$ C $\sqrt{v^2 + \frac{2eEx}{m}}$ D $\sqrt{v^2 - \frac{2eEx}{m}}$