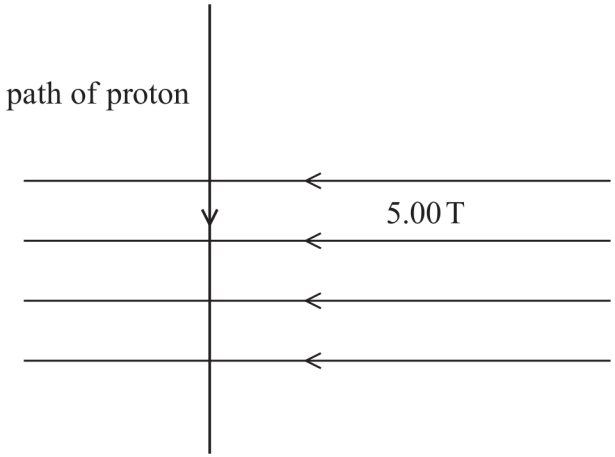
9 A proton travelling at speed v enters a magnetic field of magnetic flux density 5.00 T, as shown.



A force of 1.20×10^{-11} N is exerted on the proton.

Which of the following gives the speed of the proton in $m\,s^{-1}$?

☒ **A** $\dfrac{1.20 \times 10^{-11}}{5.00 \times 1.67 \times 10^{-27}}$

☒ **B** $\dfrac{1.20 \times 10^{-11}}{5.00 \times 1.60 \times 10^{-19}}$

☒ **C** $\dfrac{5.00 \times 1.67 \times 10^{-27}}{1.20 \times 10^{-11}}$

☒ **D** $\dfrac{5.00 \times 1.60 \times 10^{-19}}{1.20 \times 10^{-11}}$

(Total for Question 9 = 1 mark)