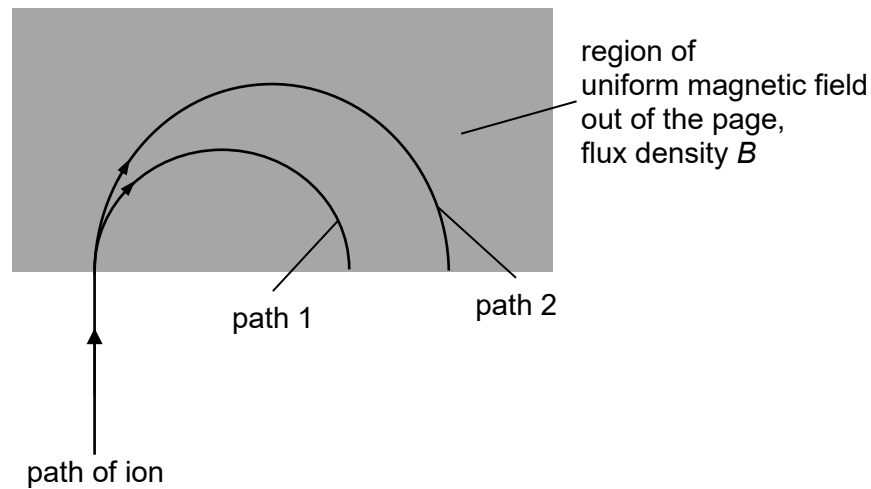


- 24** The diagram shows two types of ion, each of charge q_1 , q_2 and mass m_1 , m_2 , respectively, moving with the same speed into a region of uniform magnetic field of flux density B .

The direction of the magnetic field is out of the page.

The ions enter the region of the magnetic field at right angles to the edge of the region.



Path 1 belongs to the ion of charge q_1 and mass m_1 . Path 2 belongs to the ion of charge q_2 and mass m_2 .

Which relationship must be correct?

- A** $q_1 < q_2$, $m_1 = m_2$
- B** $m_1 > m_2$, $q_1 = q_2$
- C** $\frac{q_1}{m_1} < \frac{q_2}{m_2}$
- D** $\frac{q_1}{m_1} > \frac{q_2}{m_2}$