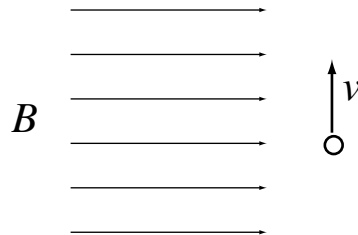


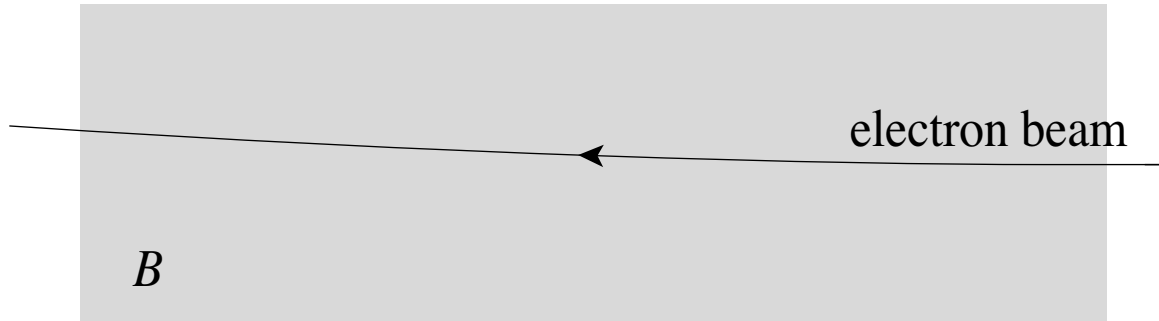
A negative particle moves upward along the trajectory shown. A magnetic field points toward the right.



In which direction is the magnetic force on the particle?

1. up
2. down
3. into the plane of the drawing
4. out of the plane of the drawing
5. left
6. right

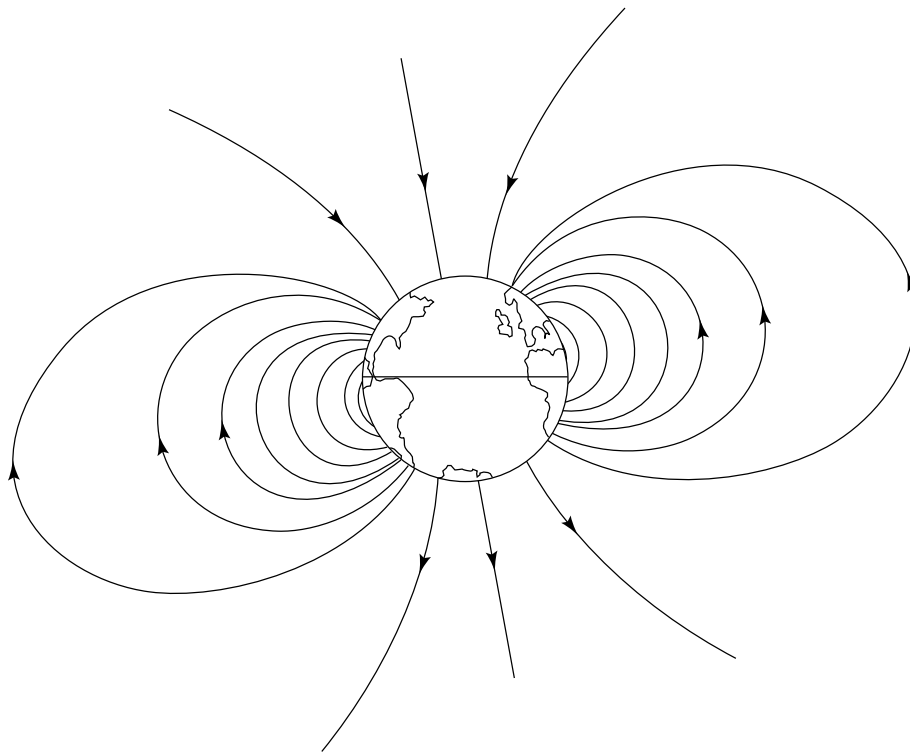
A beam of electrons enters a region with a magnetic field as shown below.



If the beam is deflected upward, the magnetic field must be oriented

1. downward
2. up
3. into the plane of the drawing
4. out of the plane of the drawing
5. to the left
6. to the right
7. none of the above - it is at an angle
8. need more information to determine

Cosmic rays (atomic nuclei stripped bare of their electrons) would continuously bombard Earth's surface if most of them were not deflected by Earth's magnetic field. Given that Earth is, to an excellent approximation, a magnetic dipole, the intensity of cosmic rays bombarding its surface is greatest at the



1. poles.
2. mid-latitudes.
3. equator.