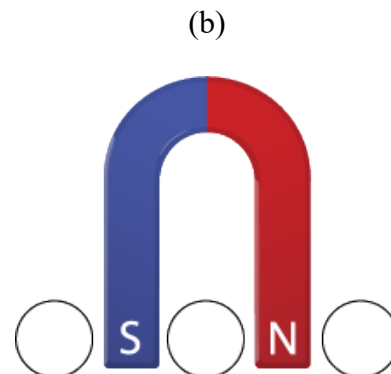
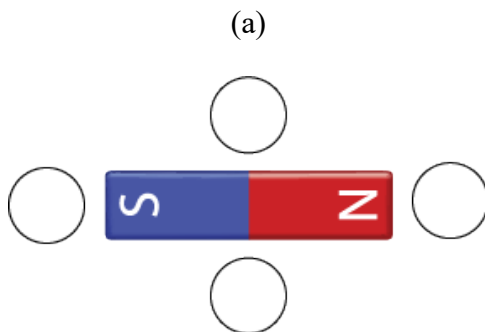


## Magnetic Fields

1. Describe what happens if a bar magnet is cut into three equal lengths.
2. Explain what is meant by the
  - (a) angle of declination.
  - (b) angle of inclination.
3. Briefly explain domain theory.
4. In the diagrams below, each circle represents a compass. Indicate the direction of the needle in each compass.



5. You have two pieces of metal that look identical to each other. One is a bar magnet and the other is unmagnetized.

(a) Describe how you could determine which one is the magnet using a compass.

6. Could you determine which one is the magnet just by manipulating the two pieces of metal? Explain.

7. Sketch the magnetic field around each of the following objects.

(a)



(b)



(c)



(d)

