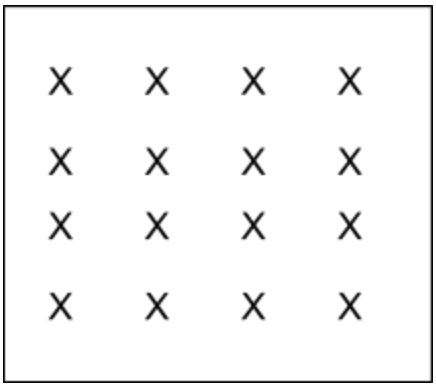
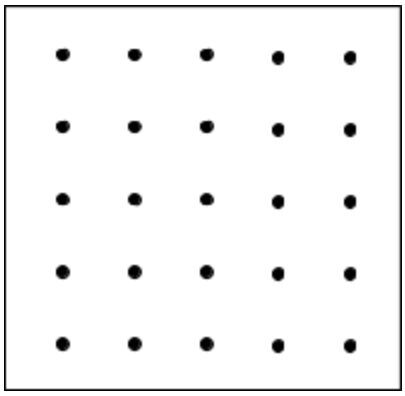
# *Electromagnetism Diagrams*

1. Draw the magnetic field around a bar magnet in the following arrangement.


2. Describe the magnetic field in each of the following regions.



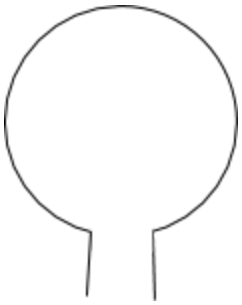


3. Use the Right Hand Rule to determine the direction of the magnetic field in the plane of the page if a wire is carrying a current in the direction indicated on the page. Draw the field around the wire for each of the following situations:

4. Two current carrying wires are placed parallel to one another with the currents moving in the same direction. Would the wires attract or repel each other? Your explanation should include a diagram.

5. Two current carrying wires are placed parallel to one another with the currents moving in opposite directions. Would the wires attract or repel each other? Your explanation should include a diagram.

6. A straight segment of wire is twisted into a circular loop. The current moves through the wire in a counterclockwise direction. Sketch the magnetic field around the wire.



7. A solenoid is a series of loops of a single wire. A solenoid is placed along the length of the page so the current in the wire is shown below. Sketch the magnetic field around the solenoid.