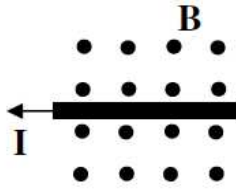
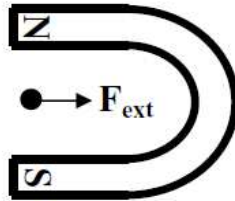


Magnetism Test Review

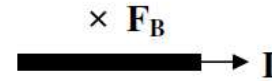
1. A current carrying wire is placed into a magnetic field. Which direction will the wire deflect?



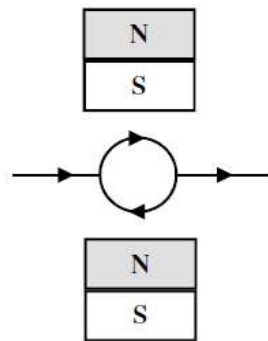
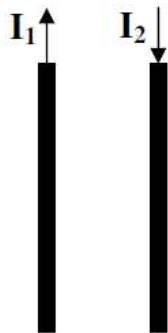
2. A wire is pushed between the poles of a horseshoe magnet. Which direction will the induced current flow?



3. A wire is inside a magnetic field. When the battery is turned on the wire deflects as shown. Find the direction of the magnetic field.

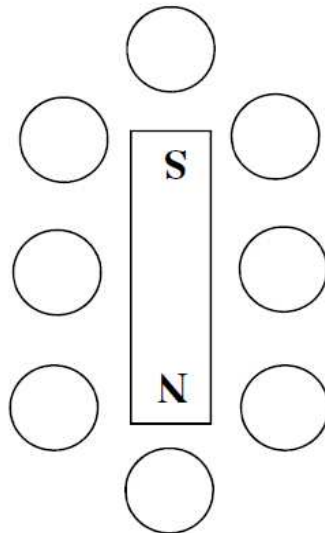


4. A. Above wire 1, which direction does B_1 point?
 B. Will the two wires attract or repel each other?
 C. Prove it.

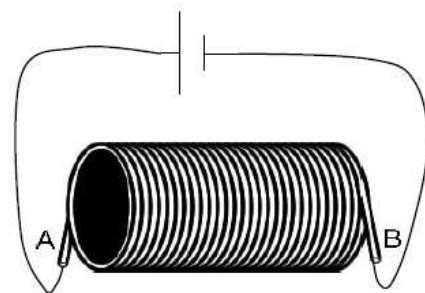


5. A. If the arrows show the direction of current flowing in the wire loop, which direction is north: into or out of the page?
 B. Which way will the loop turn?
 C. This is the simplest example of what?

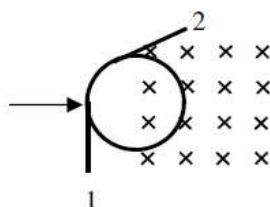
6. A. Fill in the compass arrows.
 B. Compasses always point away from what?
 C. Underneath the earth's north pole is what pole of the earth's internal magnet?



7. A. Draw the direction of current flowing from the battery.
 B. Which side of the solenoid will be N?
 C. Where is the magnetic field the strongest?



8. The wire loop is moving to the right.
 A. Will the loop of wire experience an induced current inside it?
 B. Why?

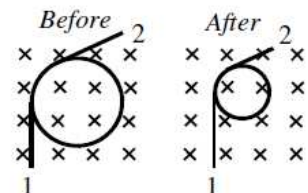


- C. Will it flow CCW or CW around the loop?

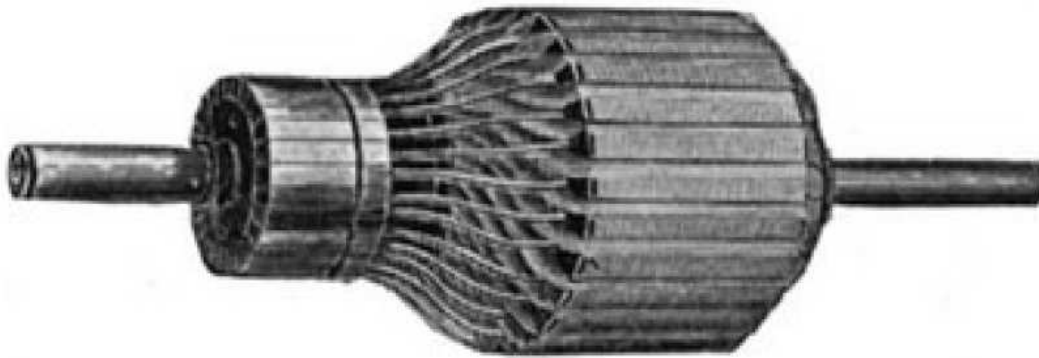
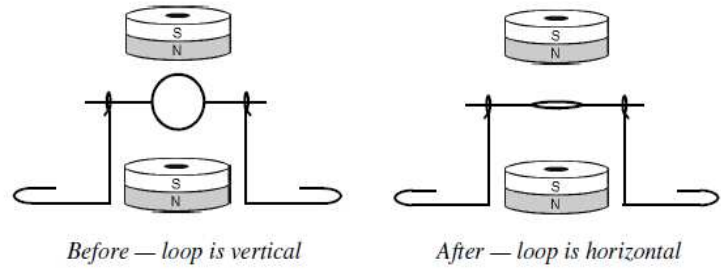
9. Will the loop of wire experience an induced current?

- B. Why?

- C. Is the current flowing CCW or CW?

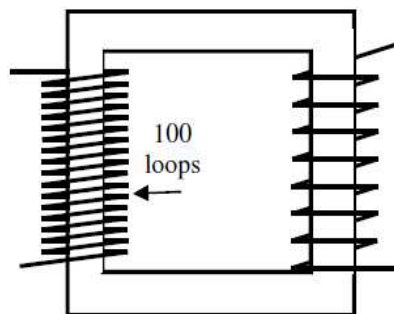


10. The diagram shows a wire loop with electricity flowing around thru it.
- If the top of the loop is moving into the page, on the first diagram label the part facing you as a N or a S pole.
 - In the first diagram, which direction is electricity flowing in the loop?
 - If the electricity stays on after the loop has turned, what happens?
 - What would the loop need to keep moving?



11. The picture above is of the armature (moving part) of a motor.
- Label the loops of wire and the commutator.
 - Why is there iron or steel in between the loops of wire?
 - How does the motor work?
 - What does the commutator do?

- To make it a step-down transformer, which side would be the input voltage?
- To make it a step-up transformer, which side would be the primary?
- How does the amount magnetic flux compare on both sides?
- Which side has the most current?
- What is the square thing inside the coils?
- What does it do?



- If the input voltage is 120 V AC and the output voltage is 880 V AC, find the number of loops on the right side.
- If the output current is 6 amps, find the input current.
- What is the output voltage if the left side is hooked up to a 9 v battery?