## Magnetism 2

From the "Magnetic Fields" notes:

1. Draw the symbol for out of the page:
2. Which side of a compass is its north pole?
3. A compass needle points toward which pole of a magnet?
4. Using the rules shown on the notes, for the following diagrams, draw the arrow inside the compasses to show which way each compass will point.

5. (From "Magnetism l" and the lab) What do we call a magnet suspended above another magnet?
6. In the diagram at the right, use the compasses to decide which direction the current flowing in the wire: to the right or to the left?
7. A. In the diagram at the right, which direction is the magnetic field (B) on the left side of the wire: into or out of the page?
B. Which direction is the magnetic field (B) on the right side of the wire?
C. Which direction must the current be flowing in the wire?


## Magnetism 2-p2

9. A. The group of coiled wires at the right is called a s $\qquad$ -.
B. Current flowing thru wires causes $m$ $\qquad$ .
C. If the current is moving as shown, which side is north? (If it helps, think of the wire as a hose. Water is forced into the wire at 1 and flows thru the wire until it leaves at 2. Your right fingers point in the direction the water is flowing across the front of the solenoid. Your right thumb points to the $N$ side.)
10. The wire below has electric current flowing into the page. Pointing your right thumb into the page, which way does the magnetic field point: clockwise or counterclockwise?

## (x)

11. A. Between the two donut magnets which way does the magnetic field (B) point?
B. Which way will the north pole of the inner magnet turn?

