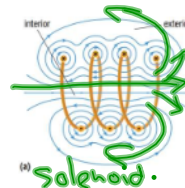
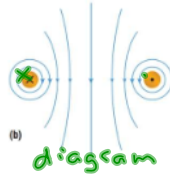
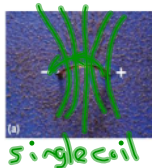
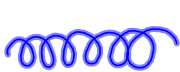


SPH3U 12.4 Solenoids**1. Interacting magnetic fields**

Magnetic fields interacting:	if 2 field lines point in the same direction, they repel. 2 field lines in opposite directions attract.
example	2 wires with opposing currents repel.

**2. Solenoids**

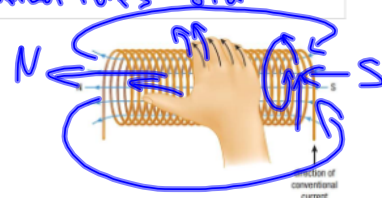
Coiled conductors:	a single wire can be wrapped in a coil, which produces very interesting (and useful) magnetic fields.
Electromagnet:	these coils are electromagnets - magnets that turn on by running current through them.
Solenoid:	the proper term for a coiled conductor.



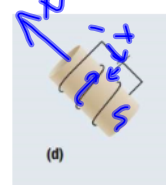
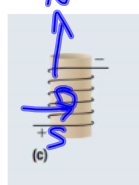
Right-hand rule #2	we learn about 3 right-hand rules total!
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Right-Hand Rule for a Solenoid

If you coil the fingers of your right hand around a solenoid in the direction of the conventional current, your thumb points in the direction of the magnetic field lines in the centre of the coil.



Draw the magnetic field lines and/or the direction of conventional current for each:



Homework: page 562: #1-4