Prelab for Kirchoff’s Laws

A breadboard is used to hold and connect electronic components in a circuit. One could twist the ends of the wire of electronic components together to join the connect the components, but the connection might not be a good one, or the wires could break. The breadboard contains folded metal strips like an upside down Greek letter omega ω. When a wire is inserted into one of the holes the folds metal strip press against the wire and hold the wire in place. There is a long horizontal metal strip just below the blue line. There is also a long horizontal strip just above the red line. For example, if a wire is inserted into the top left hole under the blue line and a second wire is inserted six holes to the right, the two wires are connected.

There are also vertical metal strips five holes long. For example holes 1a, 1b, 1c, 1d, and 1e are all the same piece of metal. Holes 1f, 1g, 1h, 1i, 1j are also the same piece of metal. Holes 1e and 1f are not connected, nor are holes 1e and 5e.
1) Trace the current (in pencil) from the positive terminal of the battery, through the circuit board, back to the negative terminal of the battery.

*The following are common symbols used for electronic components.*

- **Battery**
- **Resistor**