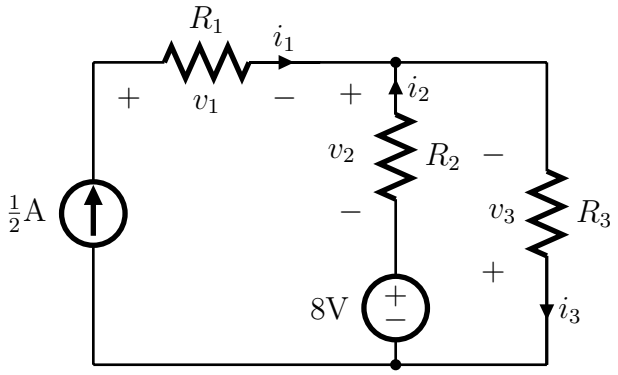
- Homework is due at the beginning of class
- Start early and get help if you need it
- Show all work neatly and clearly; redraw and/or rewrite problem if needed as work turned in should stand alone
- Identify your answers (with units) using a box, circle or underline
- Staple multiple pages together

1. Consider the circuit shown below where $i_1 = \frac{1}{2}$A, $R_1 = 10\Omega$, $v_2 = 1$V, $R_2 = 8\Omega$, $i_3 = \frac{3}{8}$A, $v_3 = -9$V. Use Ohm's Law to find v_1, i_2, R_3 as labeled.



2. Find the resistance and tolerance of the resistor shown in the image below.

3. A common size of wire used in homes is 12-gauge. Find the resistance of a 300m long piece of 12-gauge, copper wire assuming the wire has a round cross-section of radius 1.025mm. Use the resistivity of copper found in Table 2.2 in the book.
4. Convert 22mV (22 millivolts) to volts, V.
5. Convert 11µA (11 microamps) to amps, A.
6. Convert 333kΩ (333 kiloohms) to ohms, Ω.