

**This homework is due March 5th, 2018, at 23:59.**

**Self-grades are due March 8th, 2018, at 23:59.**

**Submission Format**

Your homework submission should consist of **one** file.

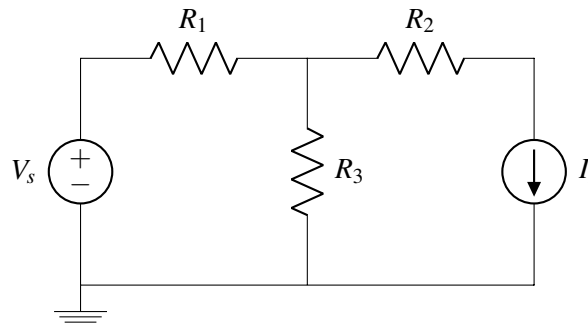
- `hw6.pdf`: A single PDF file that contains all of your answers (any handwritten answers should be scanned).

Submit the file to the appropriate assignment on Gradescope.

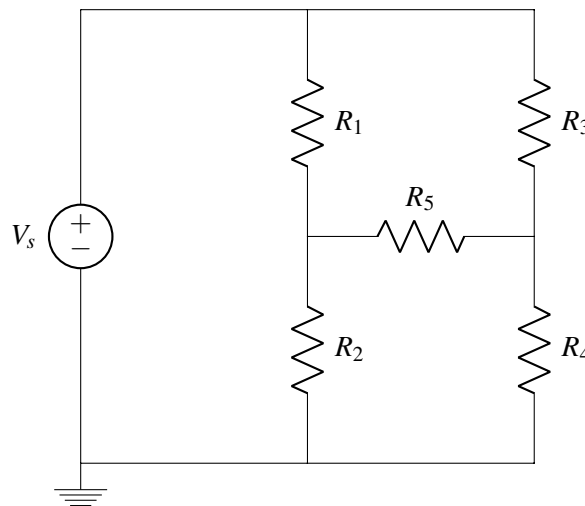
**1. Circuit Analysis**

Using the steps outlined in lecture, solve the following circuits for the currents through each branch and the voltages at each node. Use the ground node labelled for you. You may use a numerical tool, such as IPython.

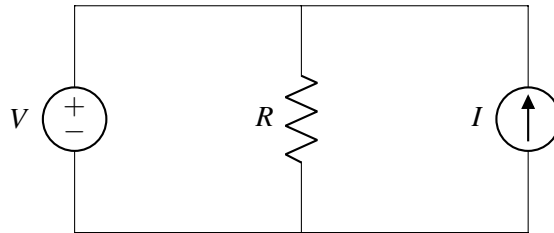
(a)  $V_s = 5\text{ V}, I_s = 2\text{ A}, R_1 = R_2 = 2\Omega, R_3 = 4\Omega$



(b)  $V_s = 5\text{ V}, R_1 = 1\Omega, R_2 = 2\Omega, R_3 = 3\Omega, R_4 = 4\Omega, R_5 = 5\Omega$



**2. Power Analysis** Find the power dissipated by each element here. Remember to label voltages using passive sign convention.



**3. Midterm Problem 3**

Redo Midterm Problem 3.

**4. Midterm Problem 4**

Redo Midterm Problem 4.

**5. Midterm Problem 5**

Redo Midterm Problem 5.

**6. Midterm Problem 6**

Redo Midterm Problem 6.

**7. Midterm Problem 7**

Redo Midterm Problem 7.

**8. Midterm Problem 8**

Redo Midterm Problem 8.

**9. Midterm Problem 9**

Redo Midterm Problem 9.

**10. Midterm Problem 10**

Redo Midterm Problem 10.

**11. Homework Process and Study Group**

Who else did you work with on this homework? List names and student ID's. (In case of homework party, you can also just describe the group.) How did you work on this homework?