# EECS 16A Designing Information Devices and Systems I Homework 6

# This homework is due October 5th, 2018, at 23:59. Self-grades are due October 9th, 2018, at 23:59.

#### **Submission Format**

Your homework submission should consist of two files.

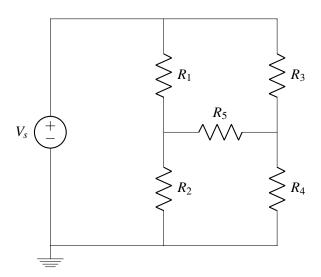
- hw6.pdf: A single PDF file that contains all of your answers (any handwritten answers should be scanned), as well as your IPython notebook saved as a PDF.
  - If you do not attach a PDF of your IPython notebook, you will not receive credit for problems that involve coding. Make sure that your results and your plots are visible.
- hw6.ipynb: A single IPython notebook with all of your code in it.
  In order to receive credit for your IPython notebook, you must submit both a "printout" and the code itself.

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 potentials at each node. Use the ground node labelled for you. You may use a numerical tool, such as IPython.

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



#### 2. Midterm Problem 3

Redo Midterm Problem 3.

- (a)
- (b)
- (c)

## 3. Midterm Problem 4

Redo Midterm Problem 4.

- (a)
- (b)
- (c)

## 4. Midterm Problem 5

Redo Midterm Problem 5.

- (a)
- (b)
- (c)
- (d)

#### 5. Midterm Problem 6

Redo Midterm Problem 6.

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)
- (g)

## 6. Midterm Problem 7

Redo Midterm Problem 7.

- (a)
- (b)
- (c)
- (d)
- (e)

#### 7. 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?