



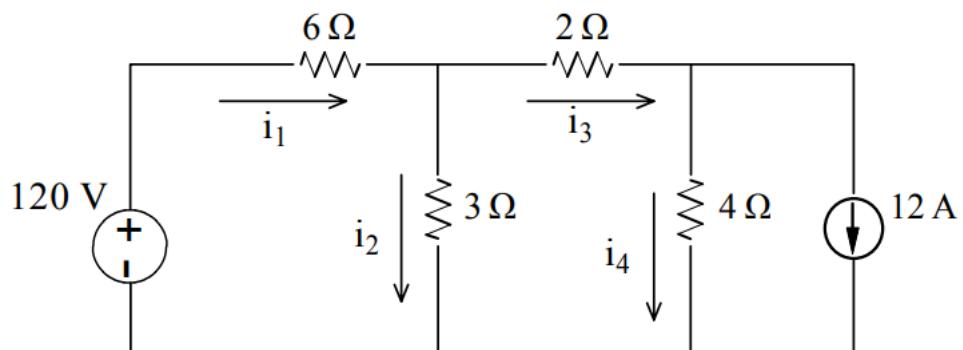
## ECE2150J 2025FA Assignment 2

Due time: 23:59, Oct. 31st, 2025

In order to get full marks, you shall write all the intermediate steps of calculation or proof unless otherwise indicated. This assignment covers content from chapter 4 to 5.

### Exercise 2.1 (20%)

Use superposition to find  $i_1$ ,  $i_2$ ,  $i_3$ ,  $i_4$

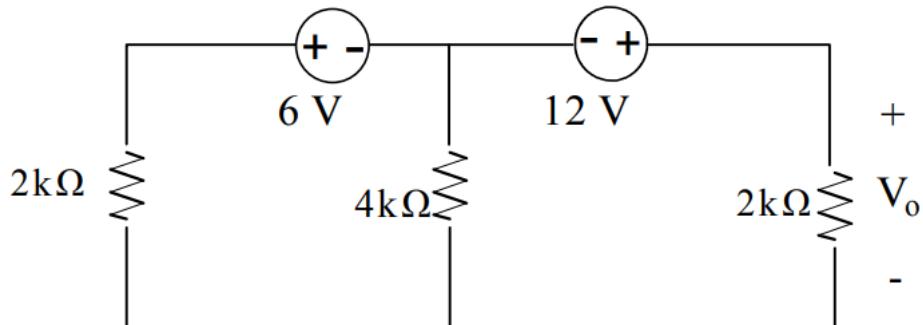




## ECE2150J 2025FA Assignment 2

### Exercise 2.2 (20%)

Use Thevenin's theorem to find  $v_0$

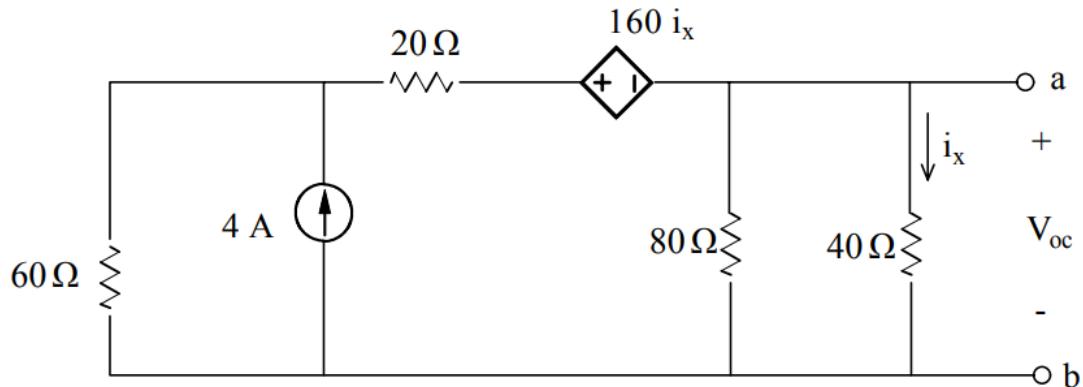




## ECE2150J 2025FA Assignment 2

### Exercise 2.3 (20%)

Find the Thevenin equivalent circuit with respect to the terminals a, b.

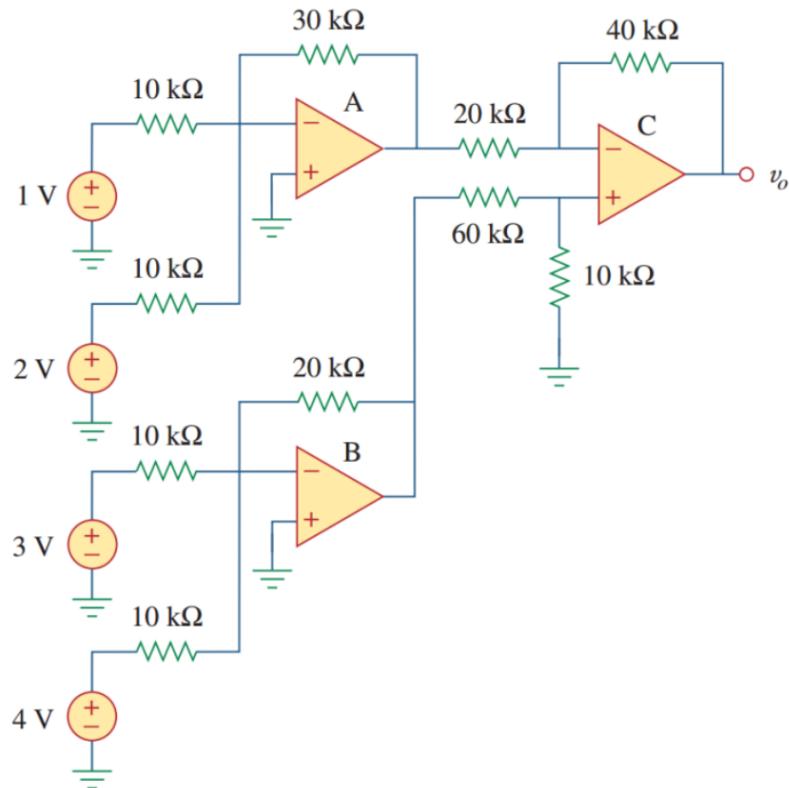




## ECE2150J 2025FA Assignment 2

### Exercise 2.4 (20%)

Determine  $v_o$  in the op amp circuit:





## ECE2150J 2025FA Assignment 2

### Exercise 2.5 (20%)

Find  $v_o$  and  $i_o$  in the circuit:

