CSE250

ASSIGNMENT 2 (SUMMER 2023)

SECTION 05, 06, 22

Instructions

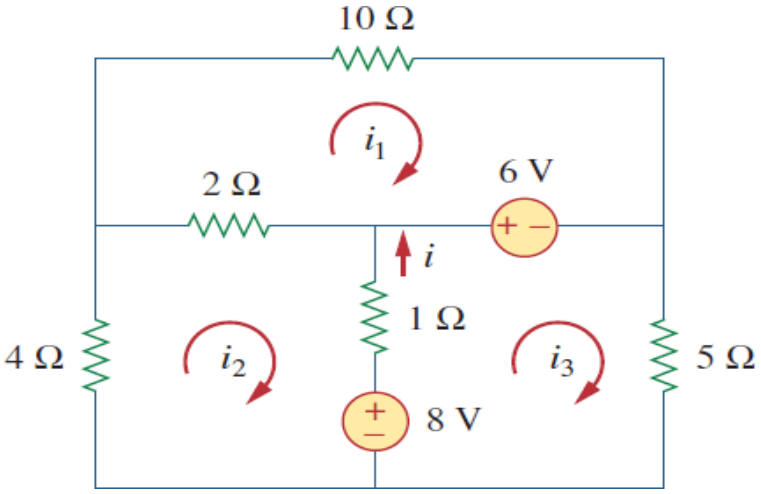
- There are **10 Questions** covering different topics in this assignment.
- Try to solve them and understand them properly.
- **Make a PDF file** containing all your answers and submit it **before 11:59 PM, 20th July, 2023**.
- Your Cover page must be **Handwritten** and should contain your **Name, ID, Course Code, Section, whom you are submitting to,** and **submission date**.
- The file naming convention is as follows: **NAME_ID_ASSIGNMENT_2_CSE250.pdf**.
- Also, **keep the hard copy**. We may need to submit that to the authority depending on the instructions.

Remember, if you can't solve or even attempt all the questions, **No Problem!** But you must try. Try to solve at least some questions from each topic. If you can't solve a question by yourself, discuss specific details in the **Queries** channel in Discord. Your classmates may help you and vice-versa. But don't give your answers to anybody directly. **Any kind of plagiarism will result in a harsh penalty. Good luck with your Exams!**

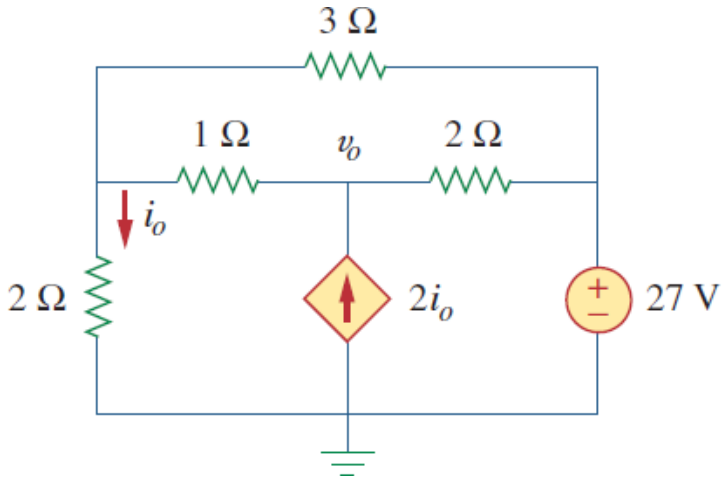
Questions

Mesh Analysis

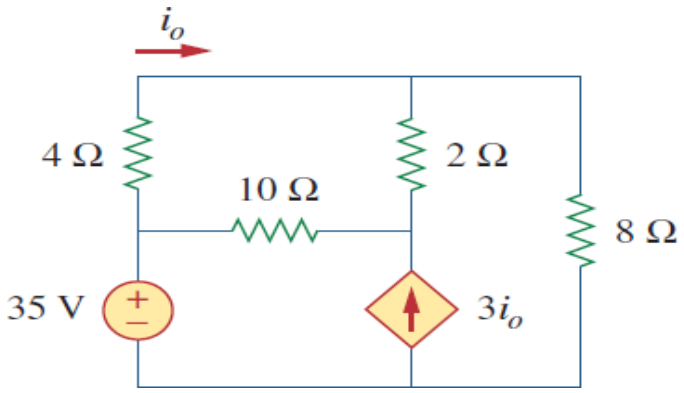
1. Apply mesh analysis to find **i** in the circuit below.



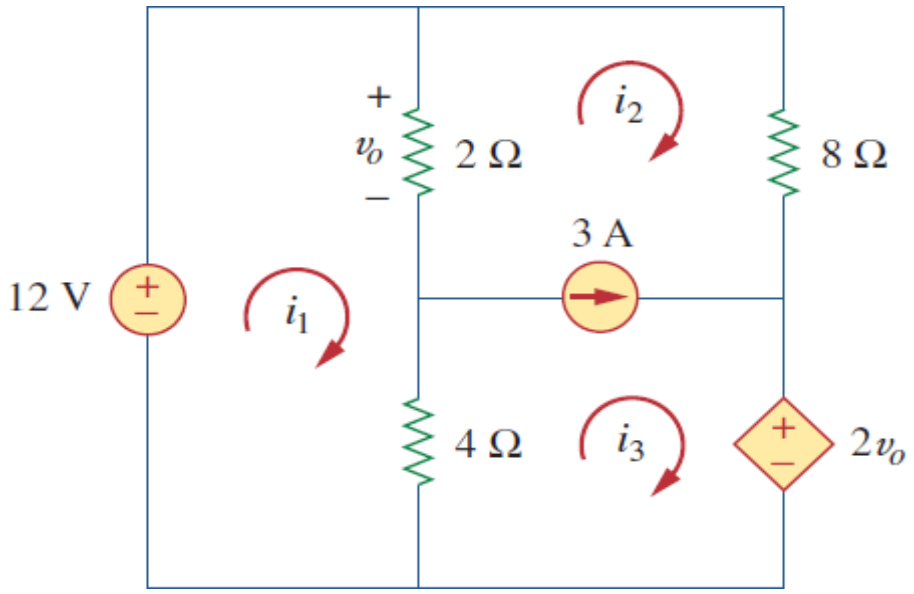
2. Find **vo** and **io** in the circuit shown below:



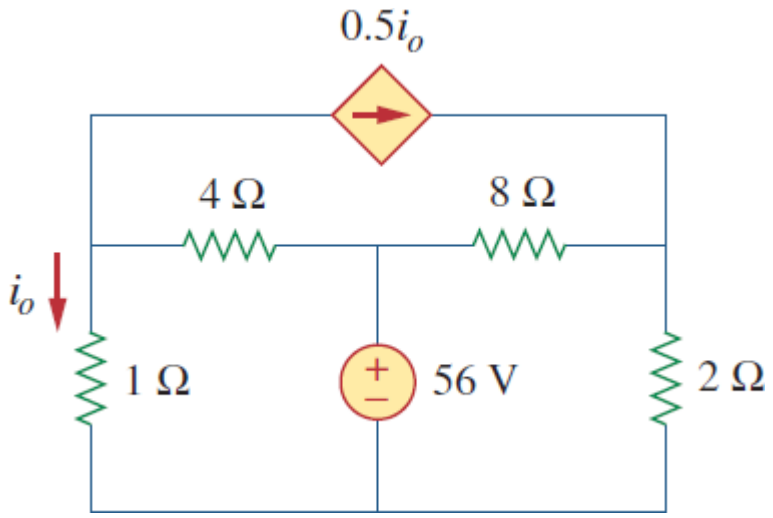
3. Use mesh analysis to find the current **io** in the circuit given below:



4. Use mesh analysis to find **i1, i2, and i3** in the circuit shown below:

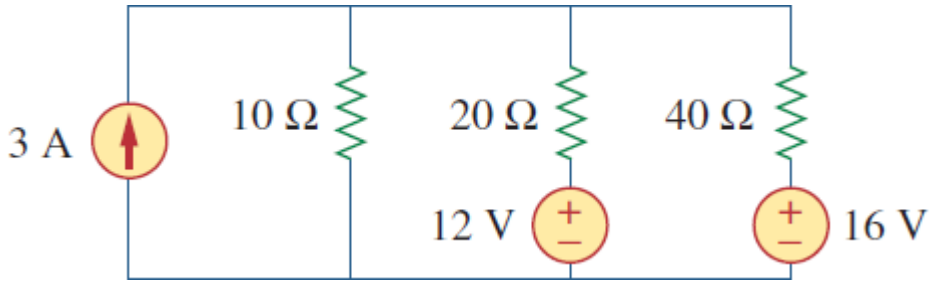


5. Calculate the **power dissipated** in **each resistor** in the circuit given below. Use Mesh Analysis.

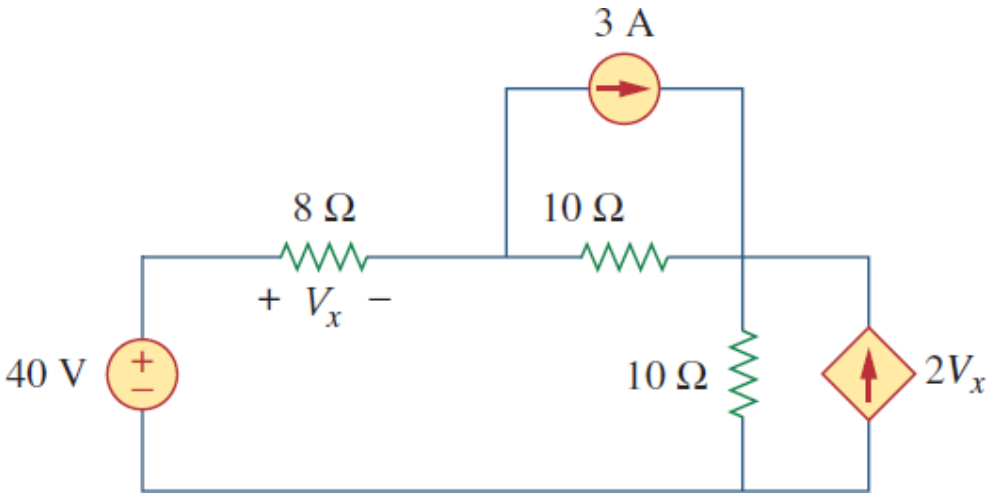


Source Transformation

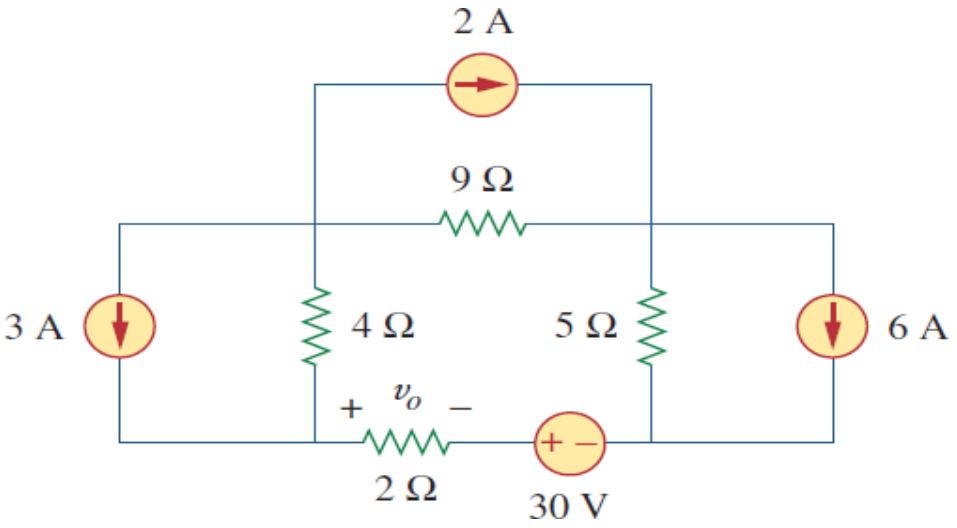
6. Use source transformation to reduce the circuit in the figure below to a single voltage source in series with a single resistor.



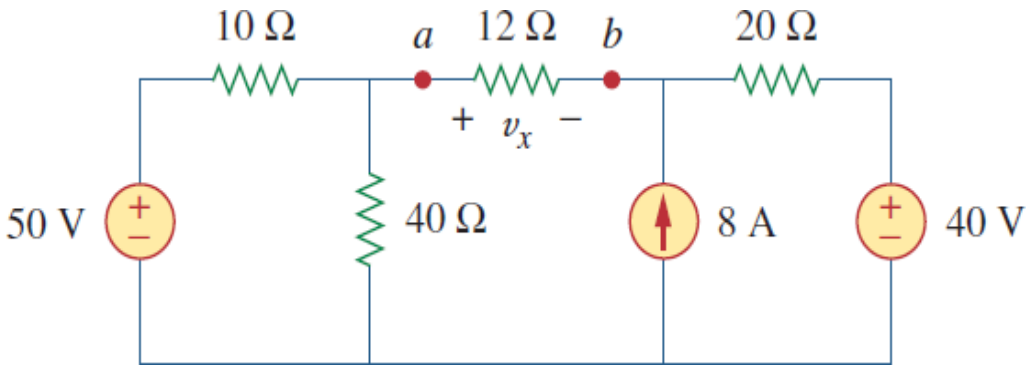
7. Use source transformation to find the voltage **Vx** in the circuit below.



8. Obtain **vo** in the circuit shown below using source transformation.



9. Apply source transformation to find **vx** in the circuit below.



10. Use source transformation to find **vo** in the circuit given below.