

EXAM 1 – ECE 203

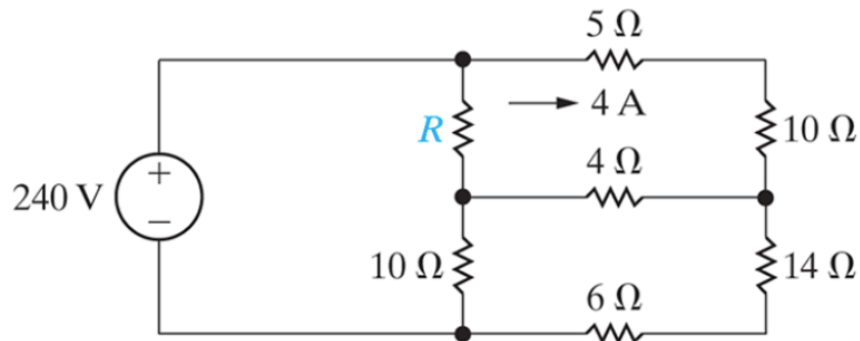
Answer each question in a new page. Scan and upload. Only PDF scans permitted.

SHOW ALL STEPS. NO PARTIAL POINTS WITHOUT STEPS.

Time: 1 Hr 30 Min

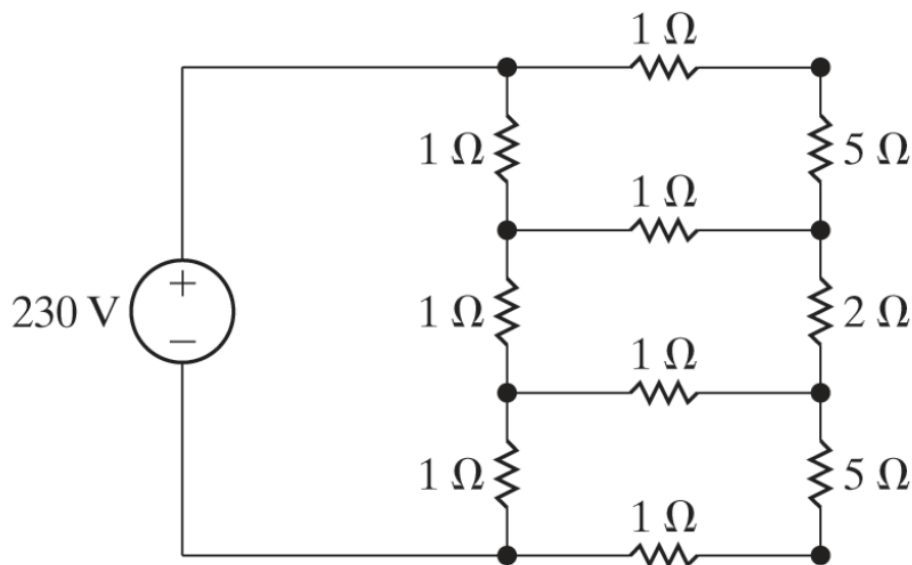
Question 1 (5 points)

What is R ?



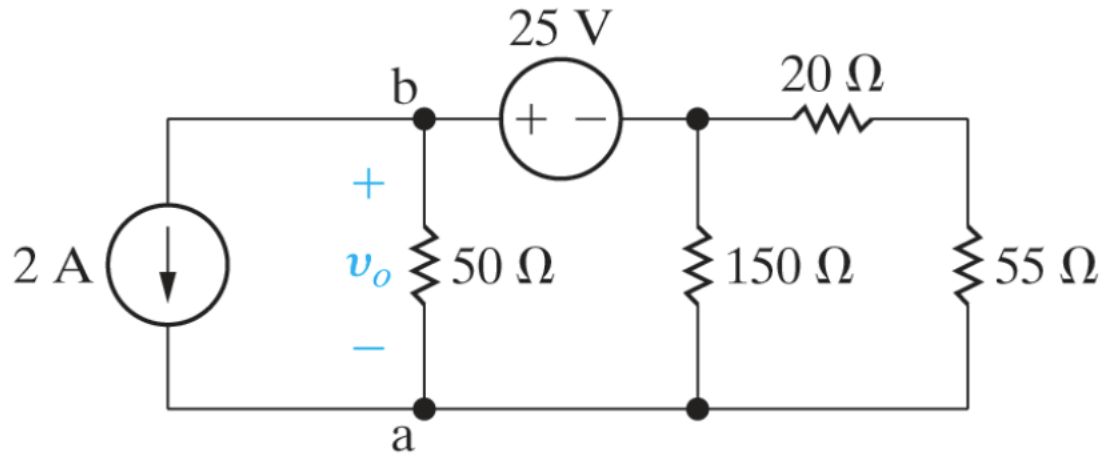
Question 2 (15 points)

- What is the equivalent resistance connected to the 230V battery?
- Use Node-voltage method to find power dissipated in 2 Ohm resistor.
- Find power supplied by 230 V



Question 3 (15 points)

- Identify the super node.
- Use node-voltage method to find V_o .



Question 4 (15 points)

- Use mesh-current method to find out how much power the 5A source delivers.
- Find total power delivered to the circuit by the current and voltage sources.
- Find total power dissipated in the circuit by the resistors.

