

Unit 4 - Mesh and Node Analysis

Course outline

How to access the portal

Unit 0

Basic Circuit Elements and Waveforms

Mesh and Node Analysis

- RMS Voltage and Current
- Topology
- Star-Delta Transformation and Mesh Analysis
- Mesh Analysis
- Nodal Analysis

Quiz : Assignment 2

- Assignment 2 - Solution
- Feedback form for week 2

Network Theorems -1

Network Theorems -2

First Order and Second Order Circuits

Laplace Transform and its Application

Circuit Analysis Using Laplace Transform

Two Port Network

Sinusoidal Steady State Analysis - 1

Sinusoidal Steady State Analysis - 2

State Variable Analysis

Analogous Systems

Assignment 2

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

1) Determine I_x in the circuit shown in Fig. 1 using nodal analysis.

2 points

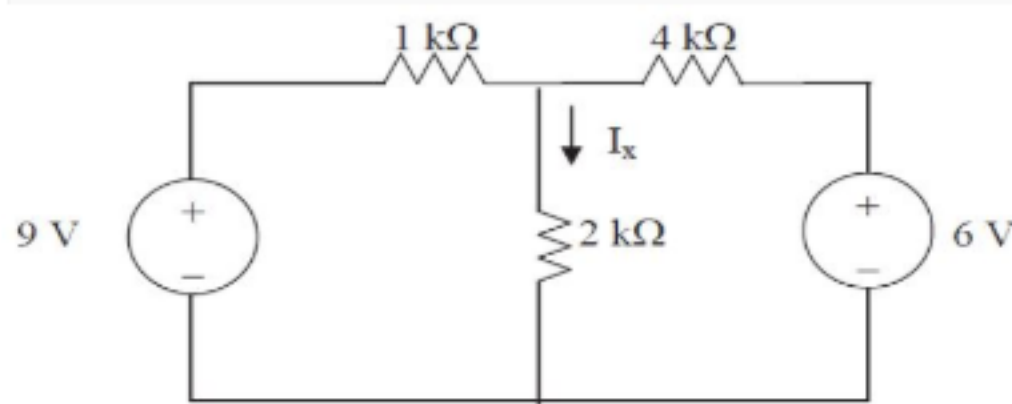


Figure 1

- 3mA
- 2mA
- 1mA
- 5mA

No, the answer is incorrect. Score: 0
Accepted Answers: 3mA

2) For the circuit in Fig. 2, obtain v_1 and v_2 .

2 points

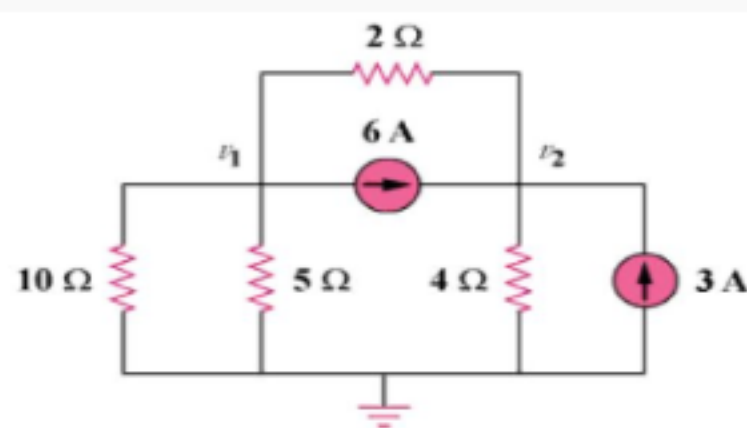


Figure 2

- 0V, 12V
- 1V, 2V
- 3V, 7V
- 6V, 7V

No, the answer is incorrect. Score: 0
Accepted Answers: 0V, 12V

3) Find the currents i_1 through i_4 and the voltage v_o in the circuit in Fig. 3.

2 points

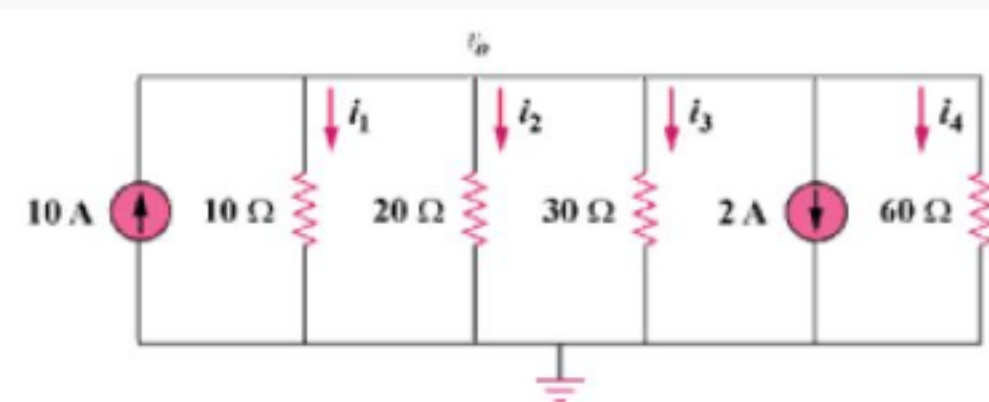


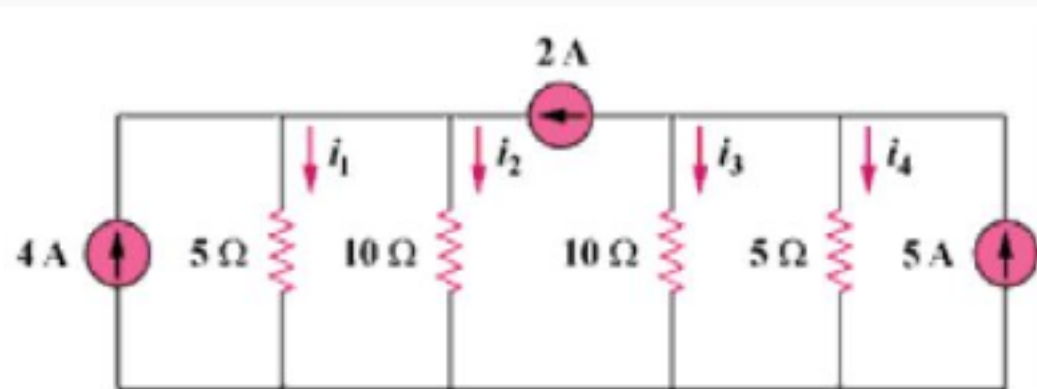
Figure 3

- 4A, 666.7mA, 40V
- 4A, 1mA, 40V
- 2A, 666.7mA, 40V
- 9A, 666.7mA, 40V

No, the answer is incorrect. Score: 0
Accepted Answers: 4A, 666.7mA, 40V

4) Given the circuit, calculate the currents i_1 through i_4 .

2 points

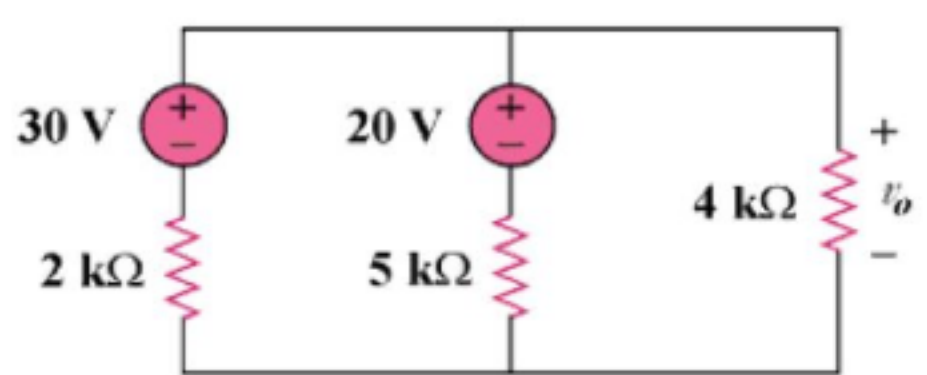


- 2A, 2A
- 4A, 2A
- 1A, 2A
- 9A, 2A

No, the answer is incorrect. Score: 0
Accepted Answers: 4A, 2A

5) Obtain v_o in the circuit

2 points



- 10V
- 20V
- 30V
- 40V

No, the answer is incorrect. Score: 0
Accepted Answers: 20V