

Unit 11 - Sinusoidal Steady State Analysis - 1

Course outline

How to access the portal

Unit 0

Basic Circuit Elements and Waveforms

Mesh and Node Analysis

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

Nodal and Mesh Analysis

Superposition Theorem and Source Transformation

Thevenin's, Norton's and, Maximum Power Transfer Theorem

Magnetically Coupled Circuits

Energy in Coupled Circuits and Ideal Transformer

Quiz : Assignment 9

Assignment 9 - Solution

Sinusoidal Steady State Analysis - 2

State Variable Analysis

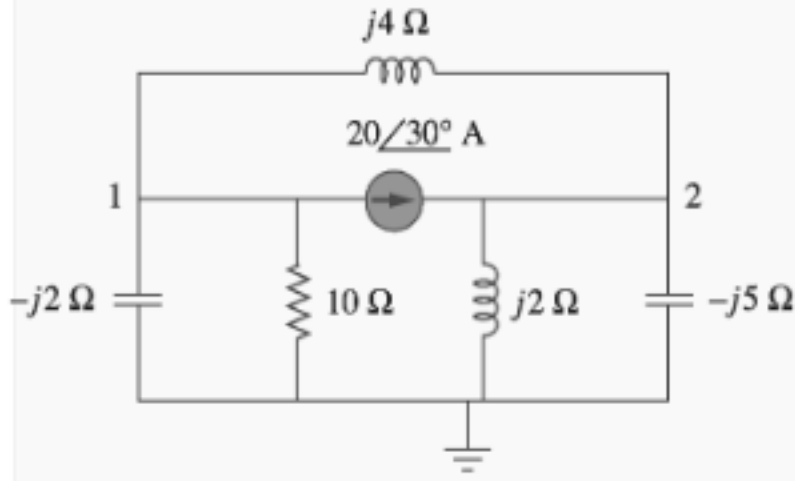
Analogous Systems

Assignment 9

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

Due on 2019-10-02, 23:59 IST.

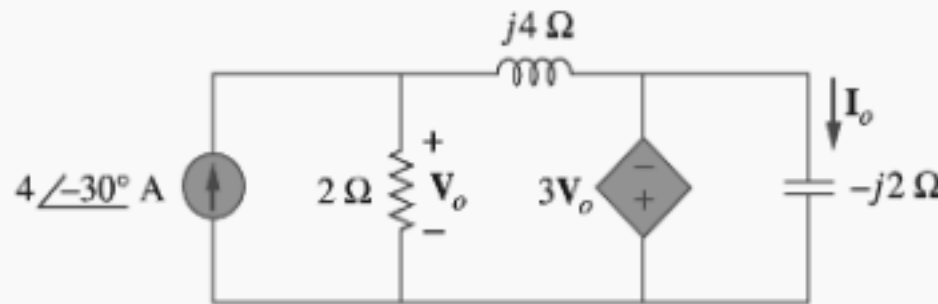
1) Calculate voltage at node 2 for the circuit given below? 2 points



- 18.41∠86.08°V
- 34.23∠144.51°V
- 57.92∠32.71°V
- 49.18∠124.08°V

No, the answer is incorrect. Score: 0
Accepted Answers: 49.18∠124.08°V

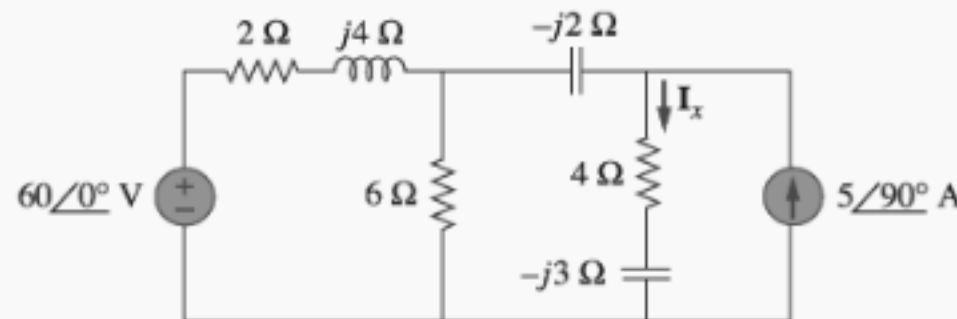
2) Calculate voltage V_0 for the circuit given below? 0 points



- 11.3∠ - 75°V
- 5.65∠ - 75°V
- 22.6∠ - 37.5°V
- 22.6∠37.5°V

No, the answer is incorrect. Score: 0
Accepted Answers: 5.65∠ - 75°V

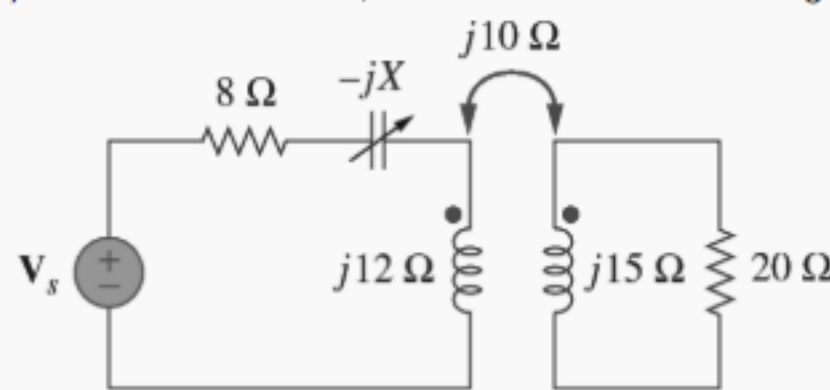
3) Calculate current I_x for the circuit given below? 2 points



- 5.238∠17.35° A
- 10.476∠17.35° A
- 5.238∠34.7° A
- 10.476∠34.7° A

No, the answer is incorrect. Score: 0
Accepted Answers: 5.238∠17.35° A

4) For the below circuit, find the value of X that will give maximum power transfer to the 20Ω load? 2 points



- 3.1Ω
- 6.2Ω
- 12.4Ω
- 24.8Ω

No, the answer is incorrect. Score: 0
Accepted Answers: 12.4Ω

5) The primary of an ideal transformer with a turns ratio of 5 is connected to a voltage source with Thevenin parameters $V_{Th} = 10 \cos 2000t$ V and $R_{Th} = 100\Omega$. Determine the average power delivered to a 200Ω load connected across the secondary winding? 2 points

- 4.25mW
- 8.55mW
- 17.15mW
- 34.3mW

No, the answer is incorrect. Score: 0
Accepted Answers: 34.3mW