

Homework 2

Coverage: Chapter 4 and 5

Due date: 5th November 2024

Problem 1

Find v_x in the below circuit:

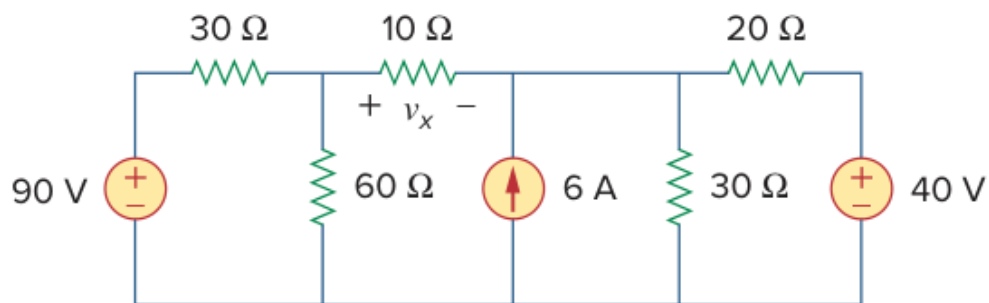


Figure 1: Circuit for Problem 1

Problem 2

Use source transformation to find i_x in the circuit

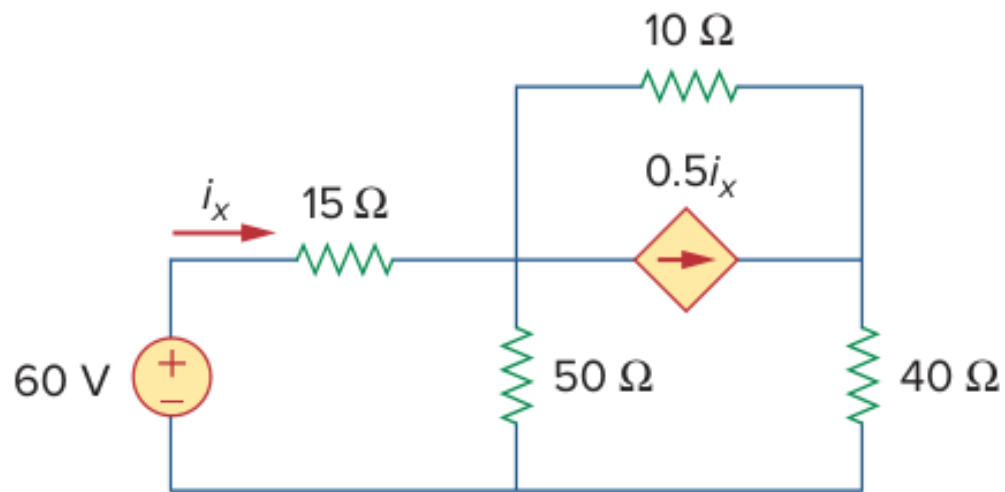


Figure 2: Circuit for Problem 2

Problem 3

Find the Thevenin equivalent of a-b

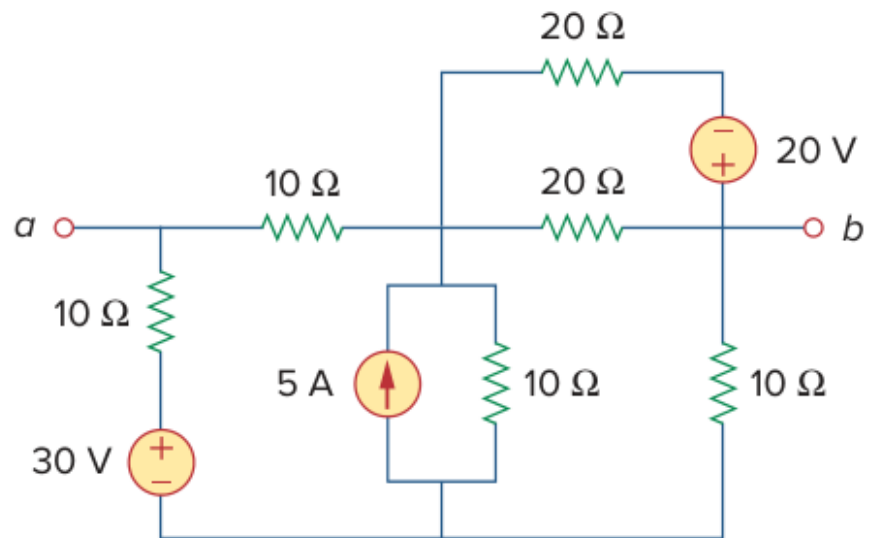


Figure 3: Circuit for Problem 3

Problem 4

Find the maximum power transferred to resistor R

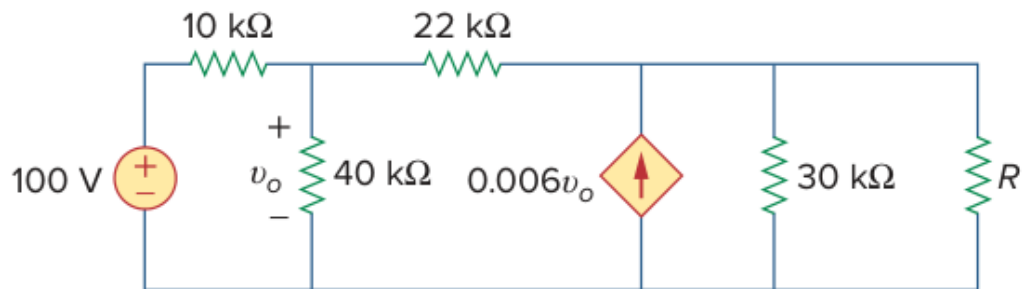


Figure 4: Circuit for Problem 4

Problem 5

Find v_o and i_o in the circuit

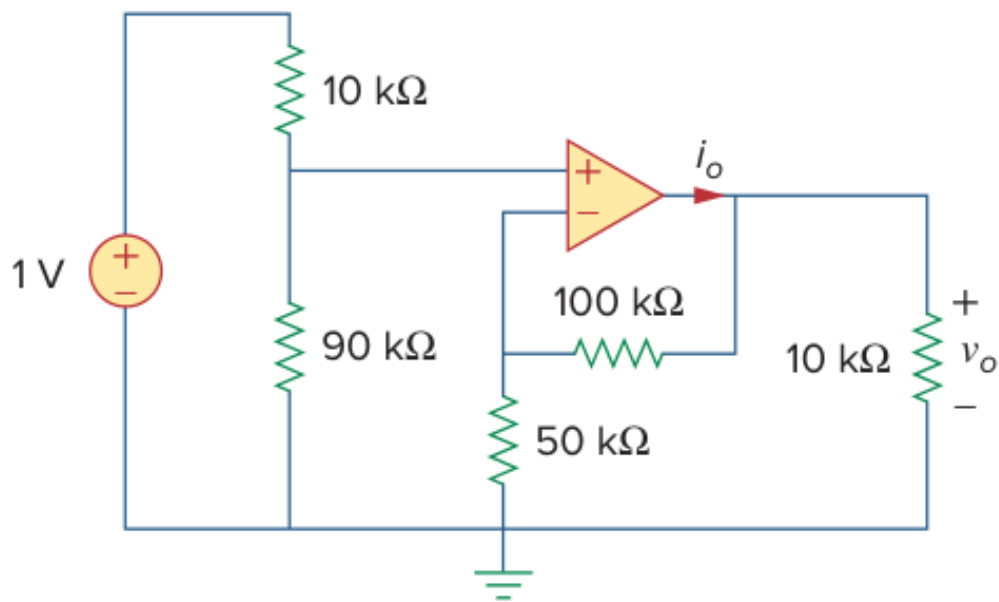


Figure 5: Circuit for Problem 5

Problem 6

Find voltage gain v_o/v_i of the circuit

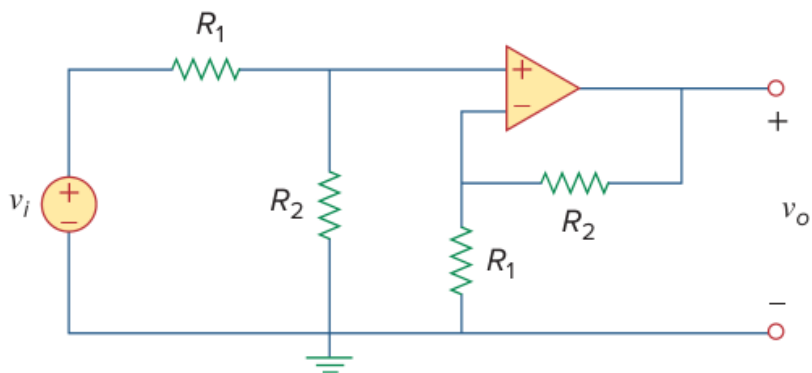


Figure 6: Circuit for Problem 6