

First Partial Integrator Exam

TE1002 Cicuits 1

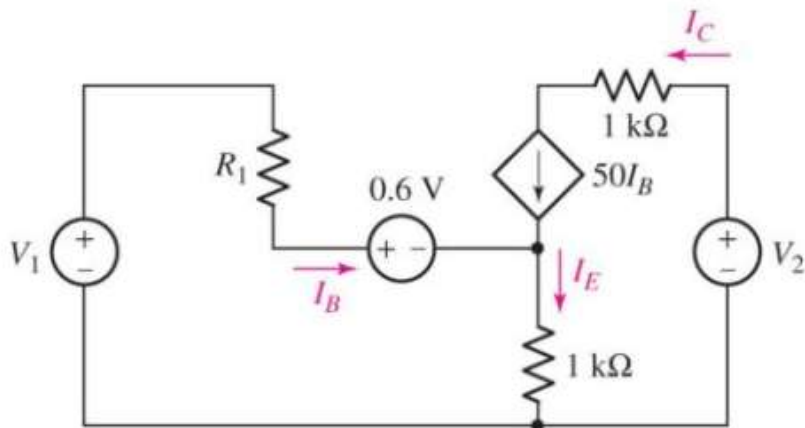
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Name _____

Problem 1

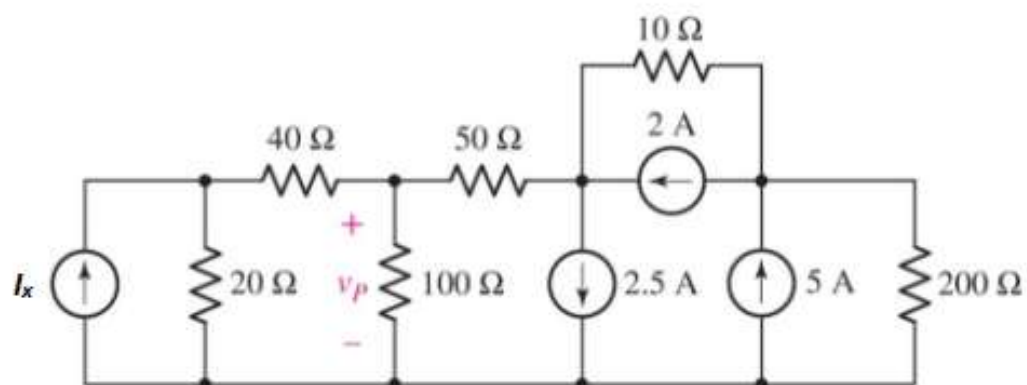
In the given circuit, calculate the voltage across the dependent source ("+" reference on top) if V_2 is 16 V, and I_B is $20\ \mu\text{A}$.



The voltage across the dependent source is

Problem 2

Consider the circuit given below.

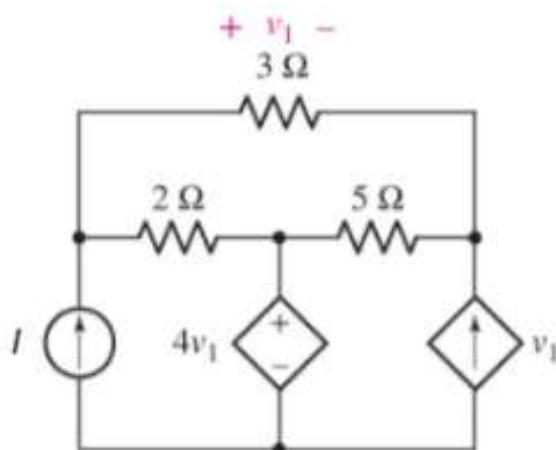


If $I_x = 18\text{ A}$, determine the value of v_p .

The value of v_p is

Problem 3

Consider the circuit given below.



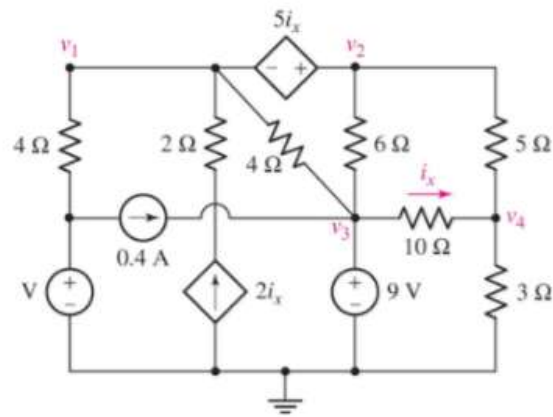
If $I = 2\text{ A}$, determine the voltage labeled v_1 across the $3\text{-}\Omega$ resistor.

The value of the voltage v_1 across the $3\text{-}\Omega$ resistor is mV.

The value of the voltage v_1 across the $3\text{-}\Omega$ resistor is

Problem 4

Consider the circuit given below.



If $V = 12\text{ V}$, determine the unknown node voltages v_1 , v_2 , v_3 , and v_4 .

The value of the node voltage v_1 is

The value of the node voltage v_2 is

The value of the node voltage v_3 is

The value of the node voltage v_4 is