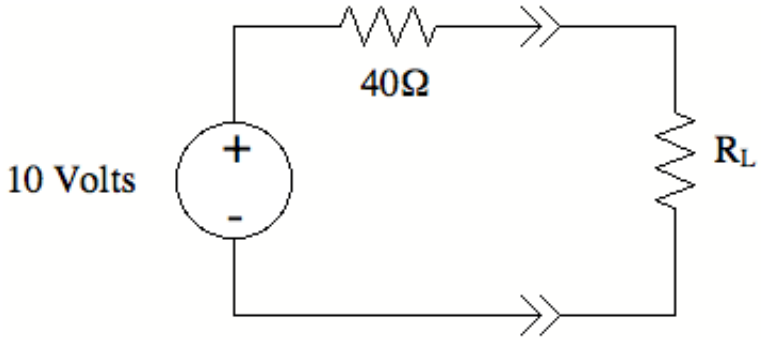
Name : _____ Section:_____ CWRU e-mail:_____

CASE WESTERN RESERVE UNIVERSITY
Case School of Engineering
Department of Electrical Engineering and Computer Science
ENGR 210. Introduction to Circuits and Instruments (4)

Quiz No. 6 **2/27/04**

PUT ANSWERS IN THE SPACE PROVIDED AND SHOW YOUR WORK IF APPROPRIATE. BE SURE TO STATE ANY ASSUMPTIONS



Problem 1 (10 points)

(a) The power dissipated by R_L will be a maximum for R_L=_____ Ω

(b) The power dissipated by R_L for R_L=10Ω is _____ watts.

(c) If R_L increases from 10Ω to 25Ω, the power dissipated by it will (circle one)

(i) increase

(ii) remain the same

(iii) decrease.

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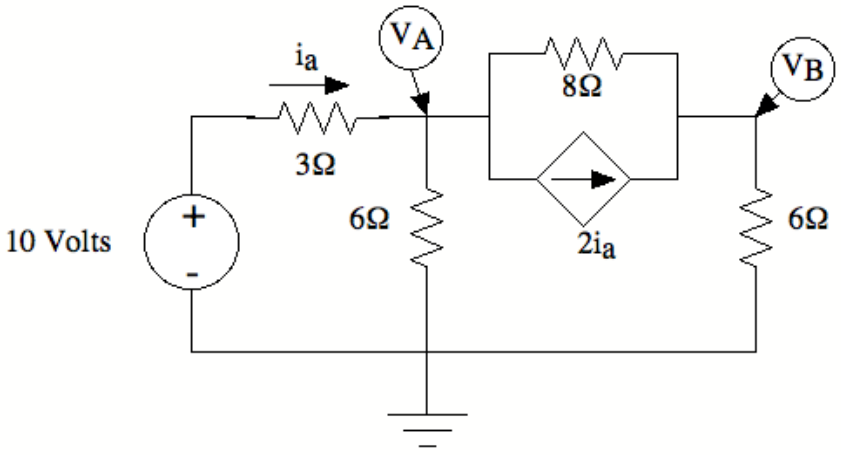
Problem 2 (10 points)
Consider this active circuit.



a) Write node analysis equations (KCL) for nodes A and B.

Node	Node-Voltage Equation		
A	$\cdot v_A$	$+\cdot$ $\cdot v_B$	=
B	$\cdot v_A$	$+\cdot$ $\cdot v_B$	=

b) Find the node voltages for the above circuit values.

V_A		V_B	