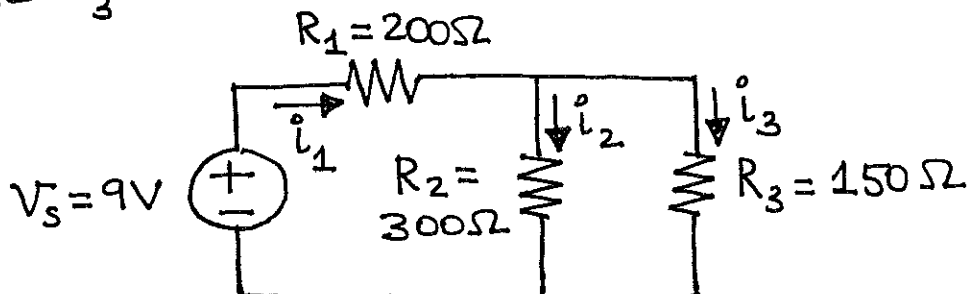
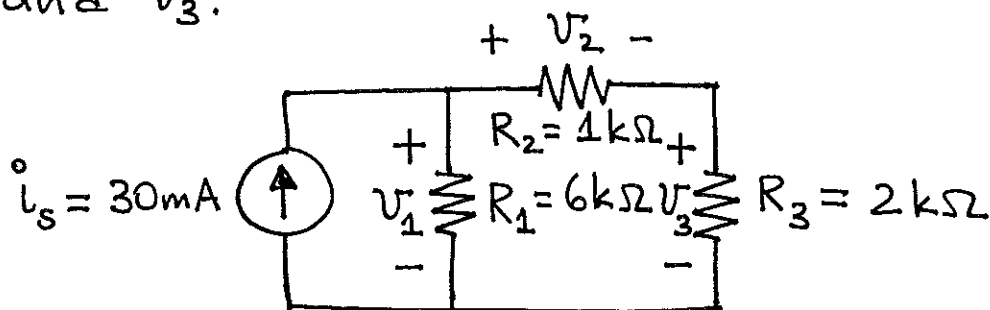


## HOMEWORK #2

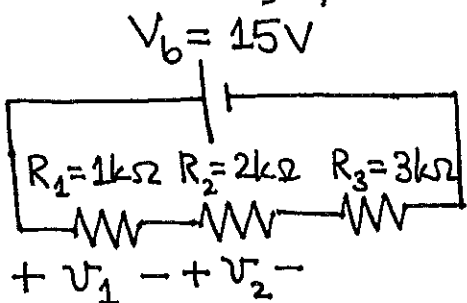
- (1) For the circuit shown, find the currents  $i_1$ ,  $i_2$  and  $i_3$ . Provide units and box each answer.



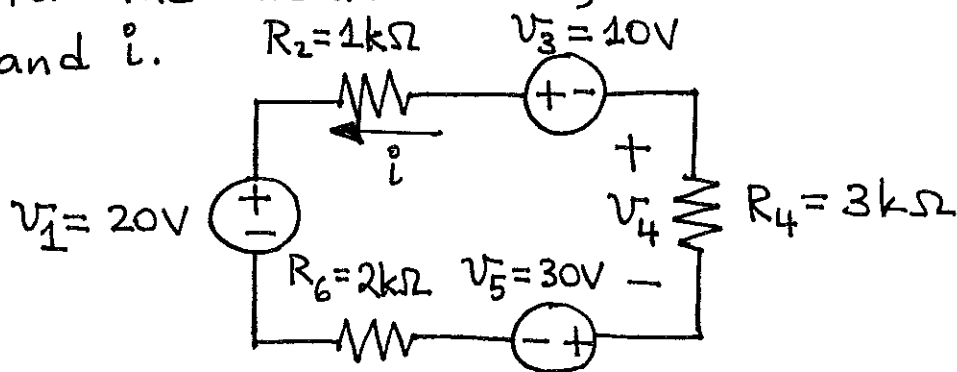
- (2) In the circuit shown, find the voltages  $v_1$ ,  $v_2$  and  $v_3$ .



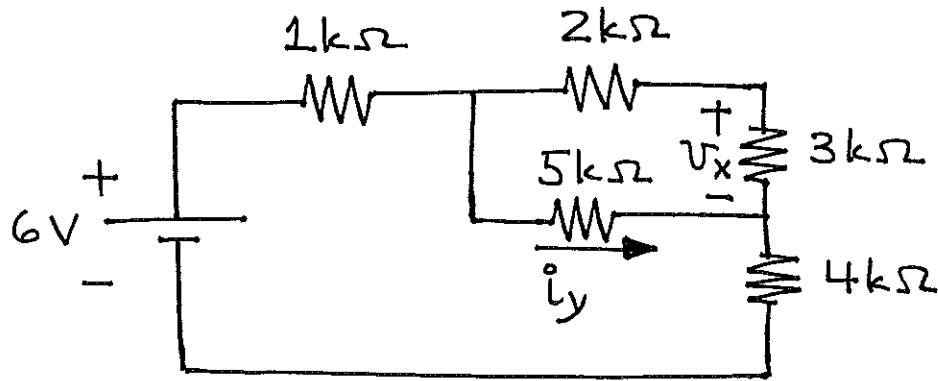
- (3) For the circuit shown, find the voltages  $v_1$  and  $v_2$ .



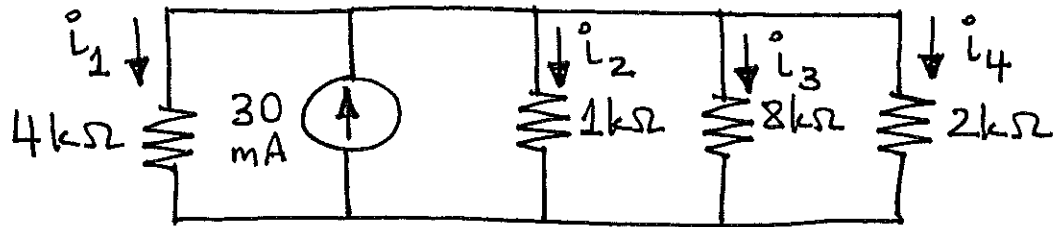
- (4) For the circuit shown, determine the values of  $v_4$  and  $i$ .



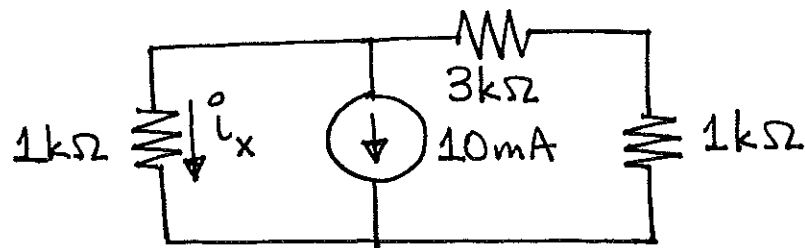
(5) For the circuit shown, find  $v_x$  and  $i_y$ .



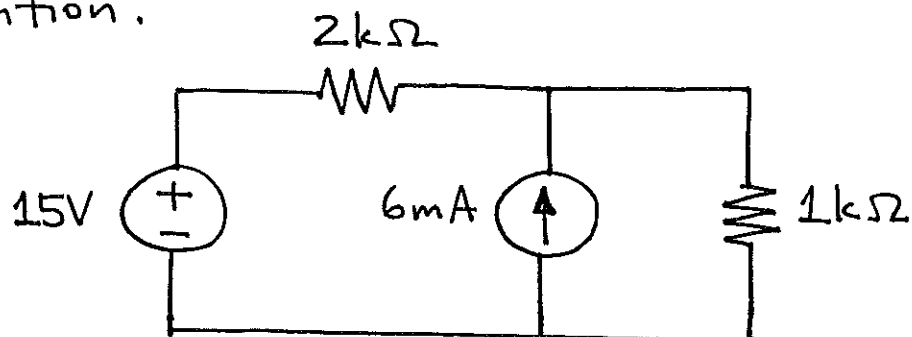
(6) For the circuit shown, find the currents  $i_1$ ,  $i_2$ ,  $i_3$  and  $i_4$ .



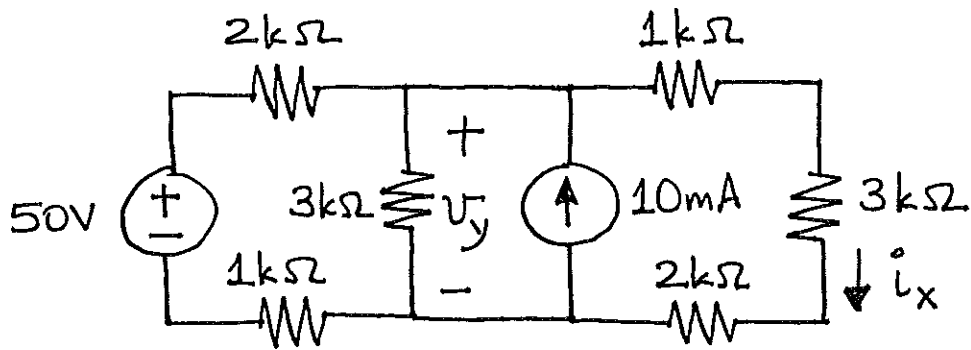
(7) For the circuit shown, find  $i_x$ .



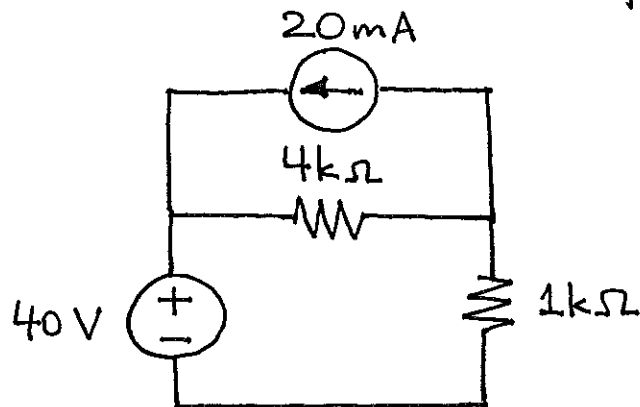
(8) For the circuit shown, find the power of each source and provide your answers based on passive convention.



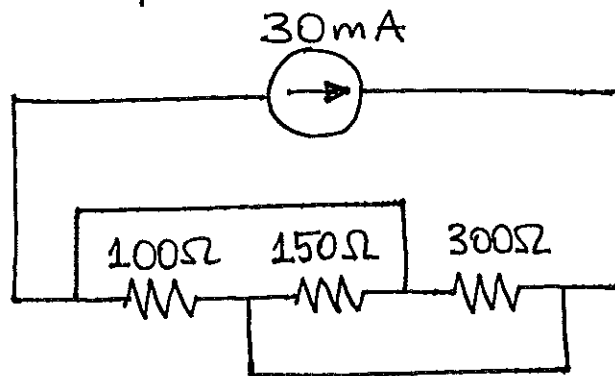
(9) For the circuit shown, find the values of  $i_x$  and  $v_y$ .



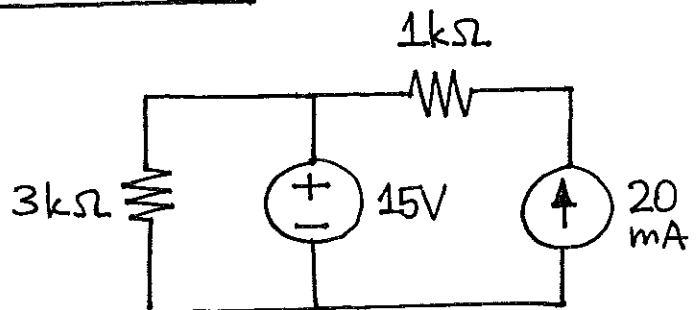
(10) For the circuit shown, find the power of each element. Also, verify conservation of energy principle.



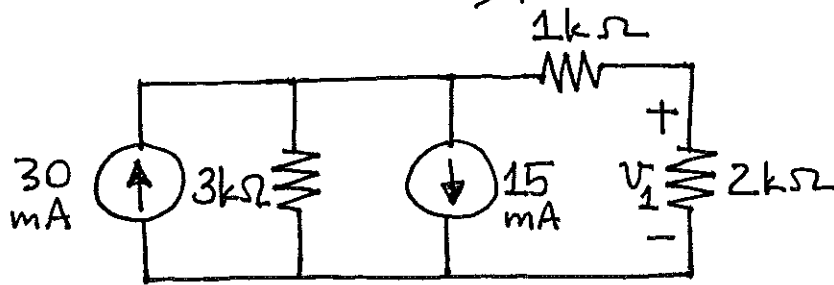
(11) For the circuit shown, find the value and direction of the current of each resistor.



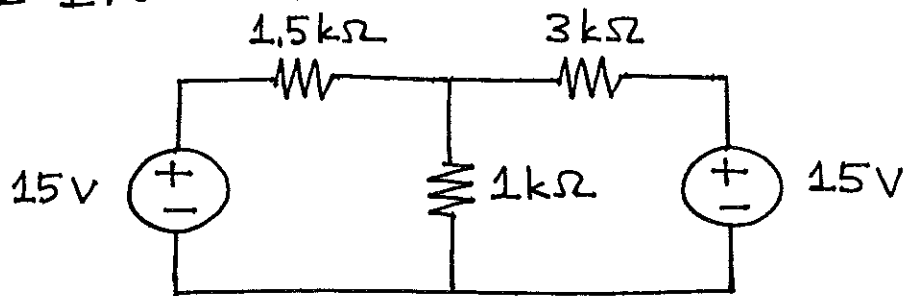
(12) For the circuit shown, find the power of each element and verify conservation of energy principle.



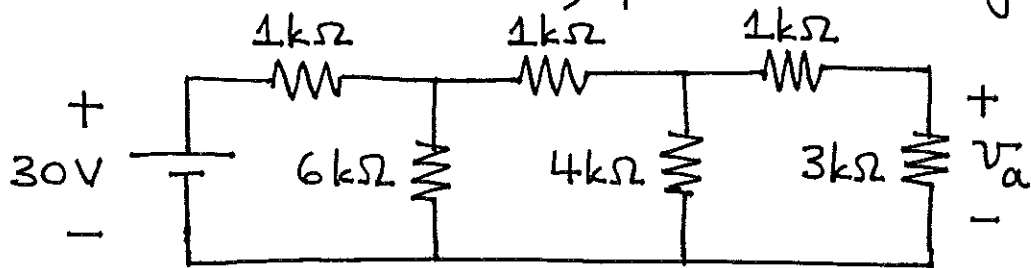
(13) In the circuit shown, find the value of voltage  $v_1$ .



(14) For the circuit shown, find the current through the  $1\text{ k}\Omega$  resistor.



(15) In the circuit shown, find the voltage  $v_a$ .



(16) For the circuit shown, find the current through each resistor including their directions.

