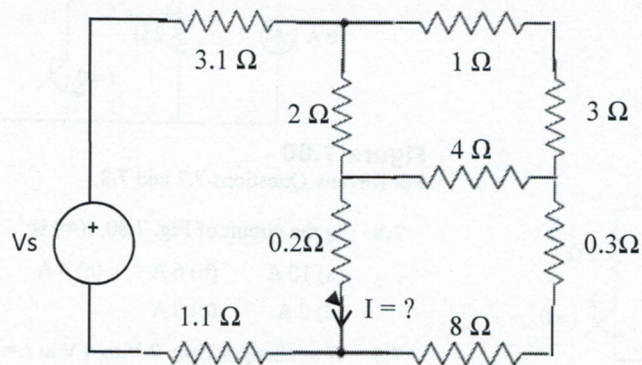
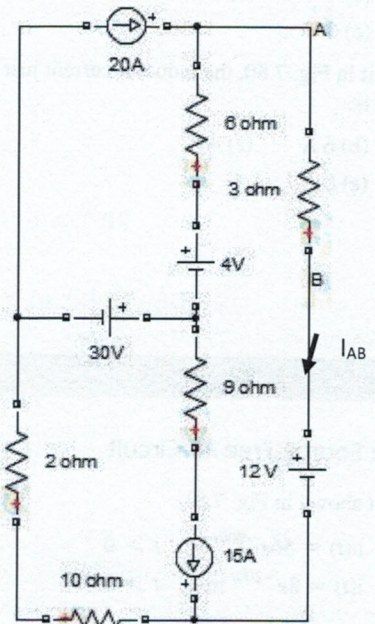
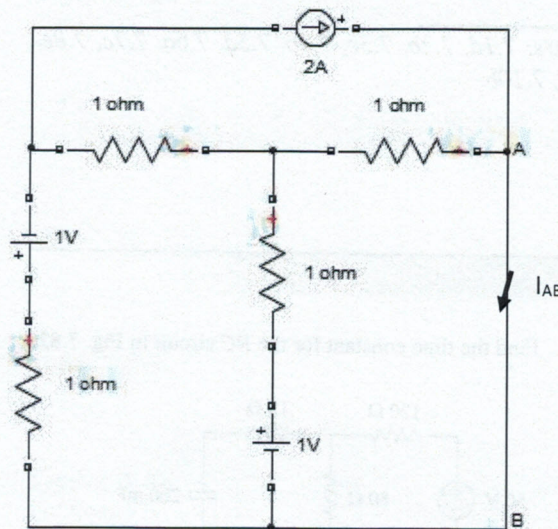


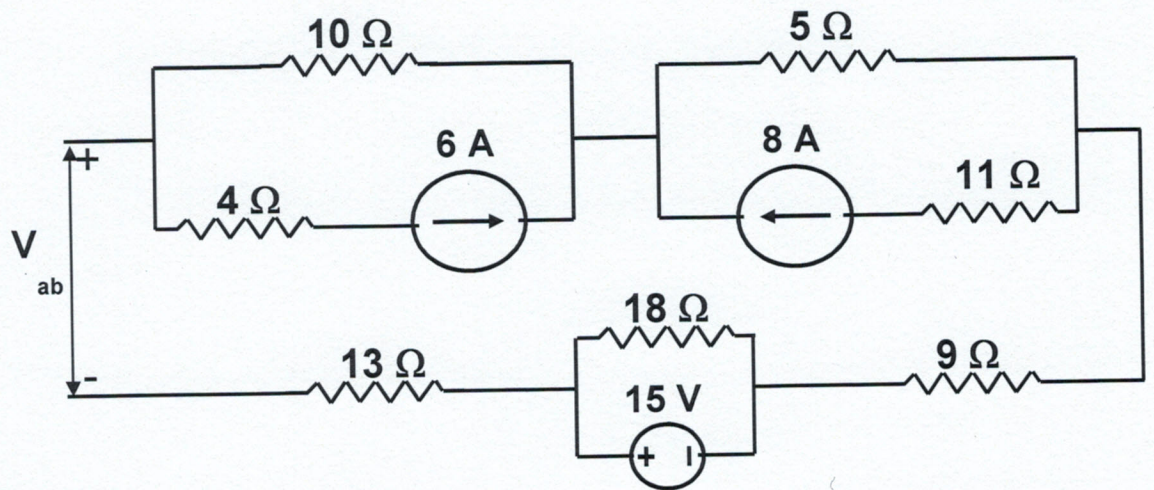
1. In the circuit below, find the current I through the 0.2Ω resistor. Hint: Use Sigma-Delta conversion if required.



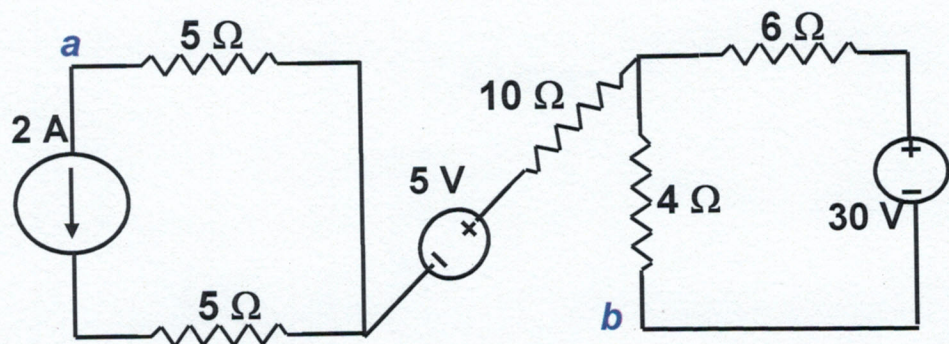
2. Find out current I_{AB} , using linear superposition in the 2 circuits diagram given below.



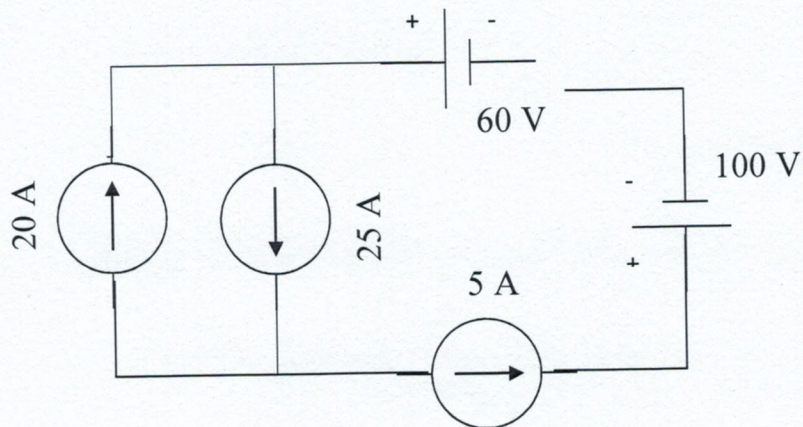
3. Determine the voltage drop V_{ab} across the open circuit in the circuit of Figure.



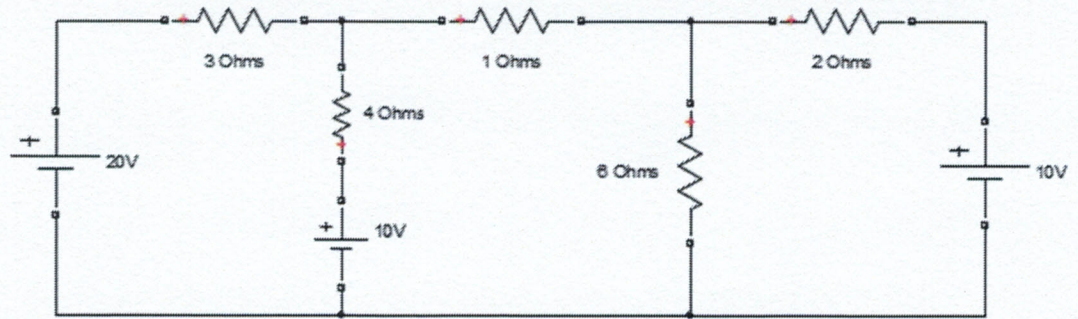
4. Find the voltage V_{ab} in the network shown in the below figure.



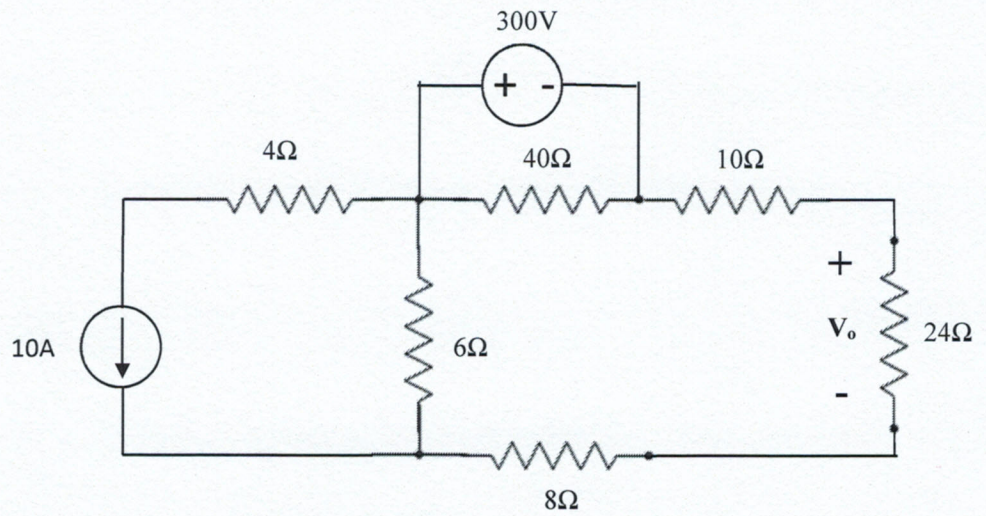
5. If the interconnection in the figure below is valid, find the total power delivered or consumed by each source in the circuit. If the interconnection is not valid, explain why.



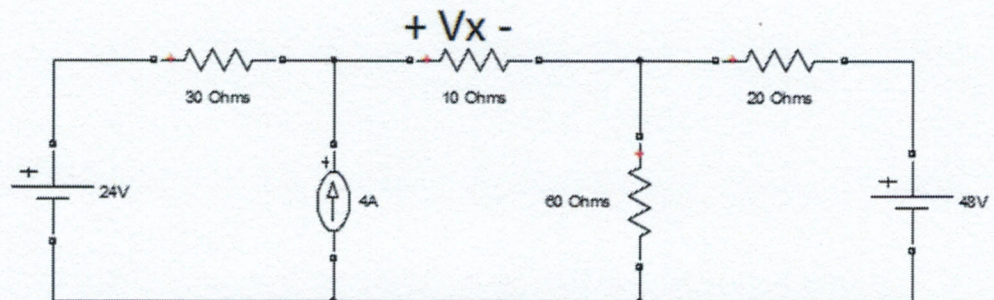
6. Determine the current which flows through each resistor in the circuit shown below.



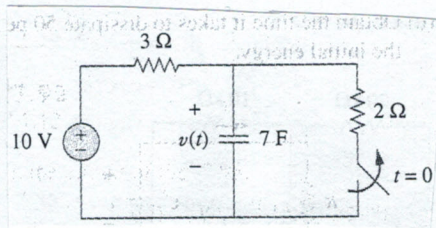
7. Find V_o in the circuit below.



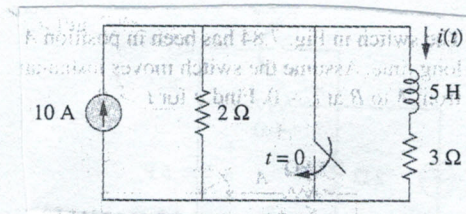
8. Use linear superposition to find the value of V_x in the circuit of figure given below.



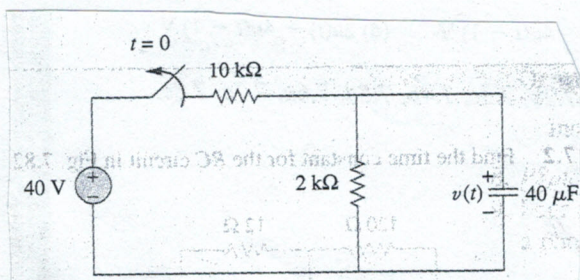
9. Transient response :



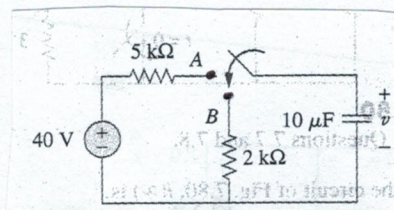
(a) plot $v(t)$, $t \geq 0$



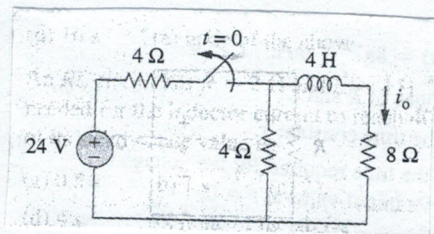
(b) plot $i(t)$, $t \geq 0$



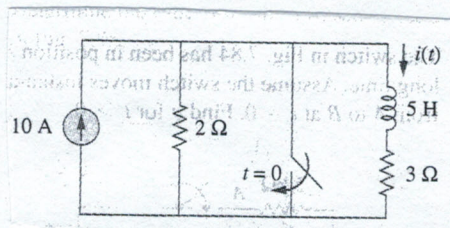
(c) plot $v(t)$, $t \geq 0$



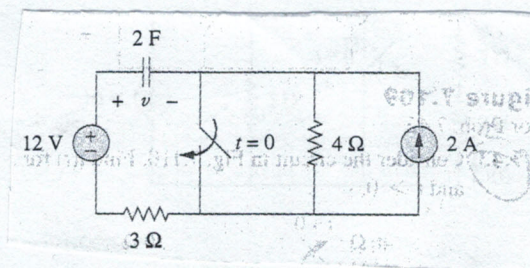
(d) At $t=0$, switch moves from A to B. plot $v(t)$, $t \geq 0$



(e) plot $i_o(t)$, $t \geq 0$



(f) plot $i(t)$, $t \geq 0$



(g) plot $v(t)$, $t \geq 0$