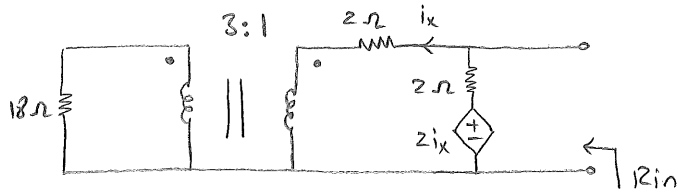
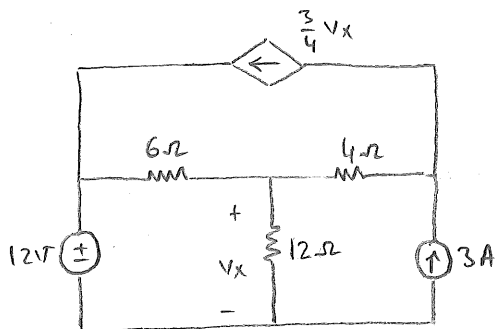
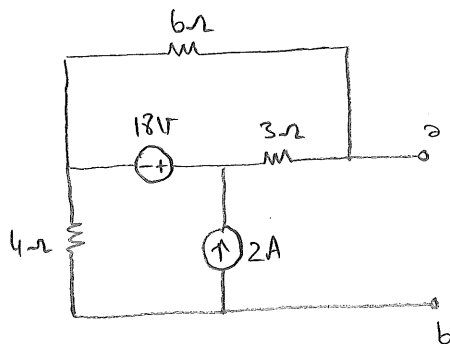
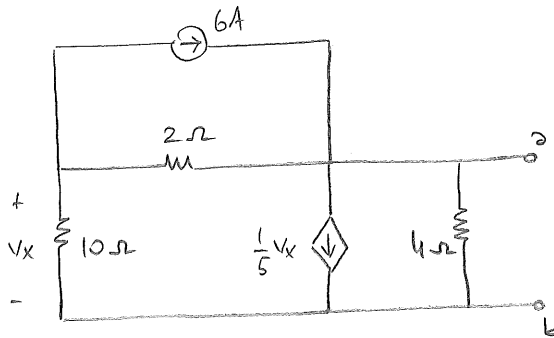
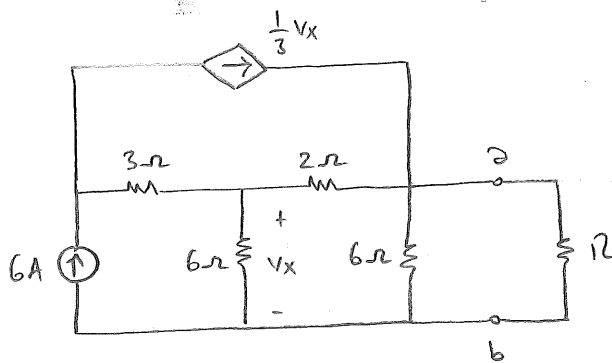


PROBLEM SET IV1 Find I_{in} .2 Find v_x by superposition.3 Find the Thevenin equivalent circuit.

4) Find the Thevenin equivalent circuit.

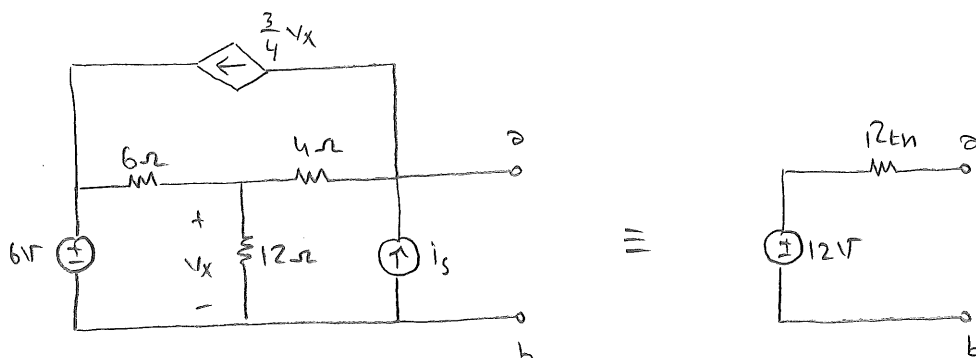


5) In this circuit 12 represents the load.



- Find the Norton equivalent circuit seen by the load.
- Find the resistance 12 for maximum power transfer to the load.
- Find this maximum power.

6) The below one-ports are equivalent. Find i_s and R_{th} .

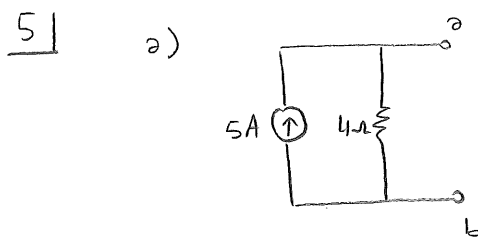
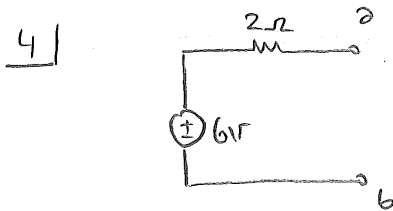
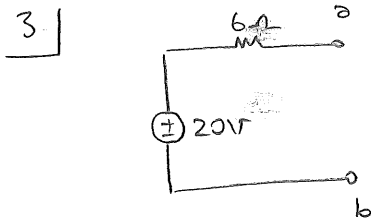


KEY

1] $R_{th} = 2\ \Omega$

2] $V_x' = 2V$ (due to $\oplus$) $V_x'' = 3V$ (due to $\uparrow$)

$$V_x = V_x' + V_x'' = 5V$$



b) $R = 4\ \Omega$

c) $P_{max} = 25W$

6] $I_s = 7A$, $R_{th} = 2\ \Omega$