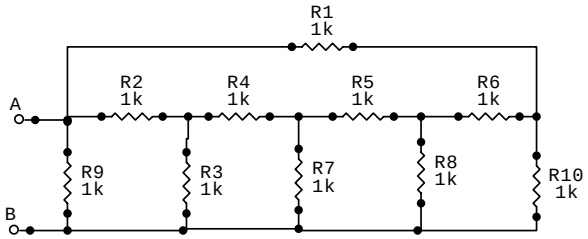
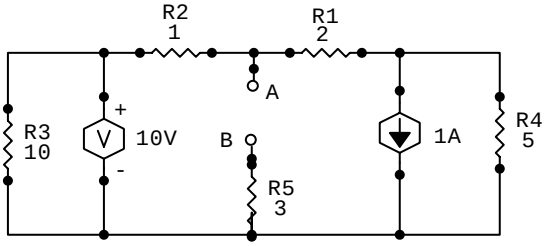
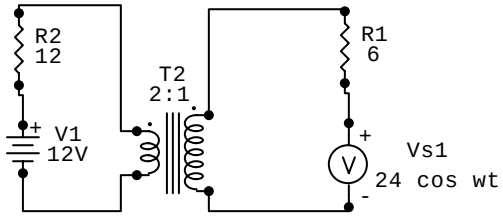
1. In the diagram below, all of the resistors are 1kΩ resistors, find the equivalent resistance between A and B.



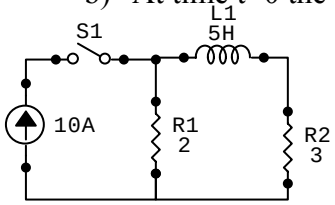

2. Find the Thevenin's equivalent between A and B.




3. Find the current in the two resistors. Find also the power dissipated in the two resistors.

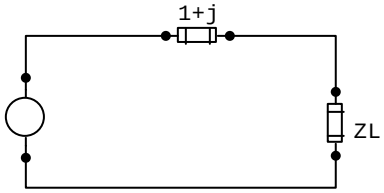



4. a) The switch is originally closed and the system is in equilibrium. Find the current in each branch.
   b) At time t=0 the switch is opened, find the current in each branch at t= $0^+$




5. The load is connected to the source by a line which is represented by the impedance of 1+j Ohm. The power factor of the load (cos θ = 0.8). Find the current in the circuit and the power delivered to the load.

Source:
120V /_0 RMS




Load: 100V RMS
Phase factor=0.8