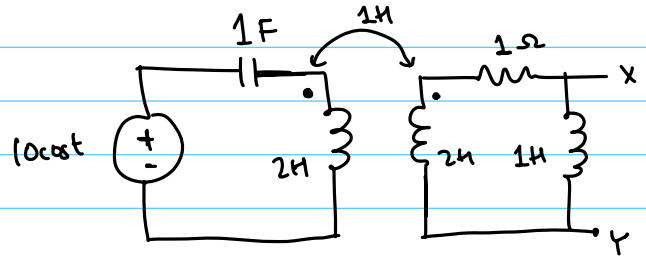
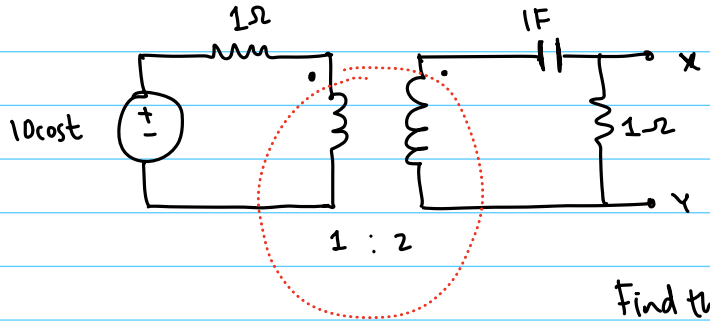
Q1 =:



Find the Thevenins equivalent of the circuit across X & Y

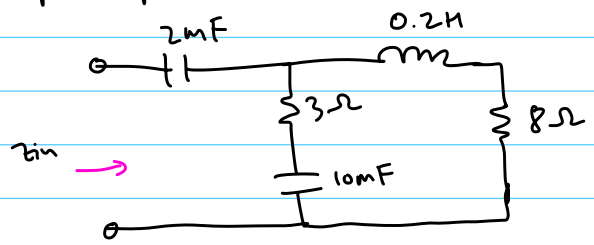
Q2. ==



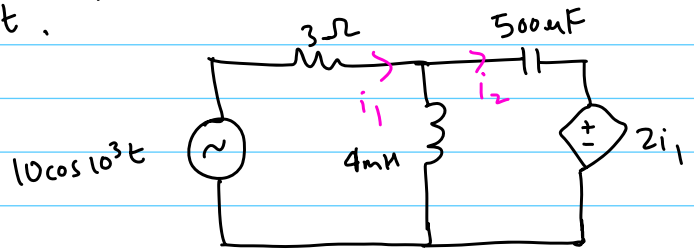
Ideal Transformer

Find the Nortons equivalent of the circuit across X & Y.

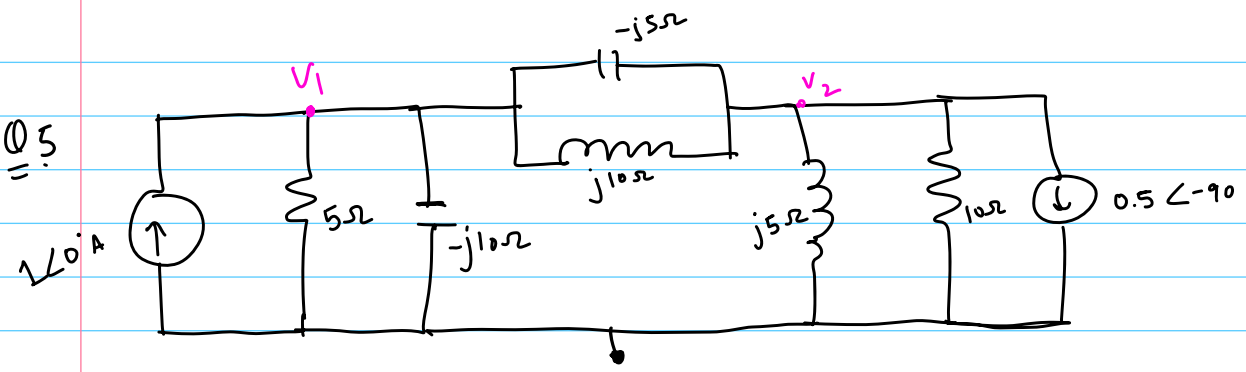
Q3 =: Find input impedance Z_{in} for $\omega = 50$ rad/sec.



Q4 =: Obtain expressions for the time domain currents i_1 & i_2 in the circuit.



Q5



Find the time domain node voltages $v_1(t)$ and $v_2(t)$ in the above circuit.