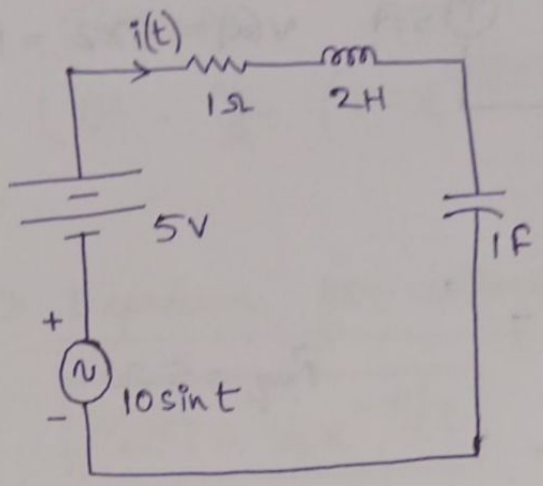
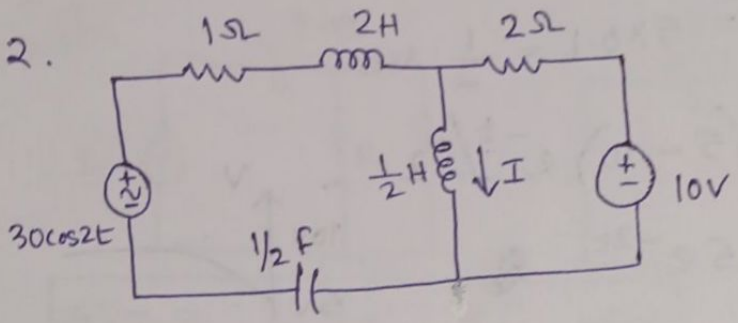
MINOR 2 ASSIGNMENT

1.



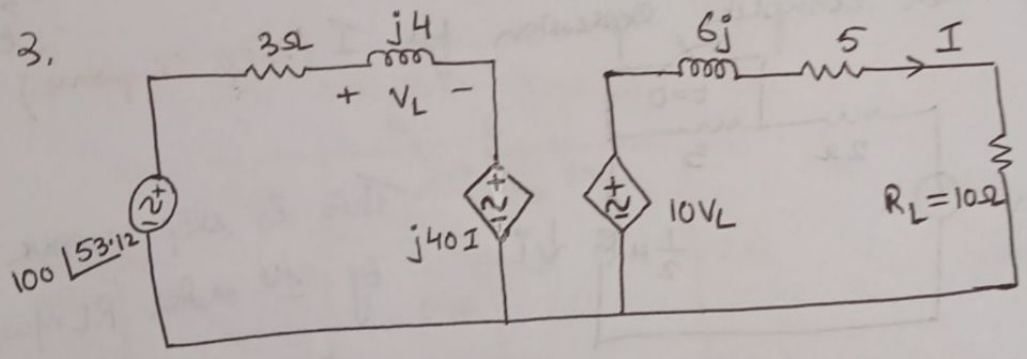
Find $i(t)$

2.



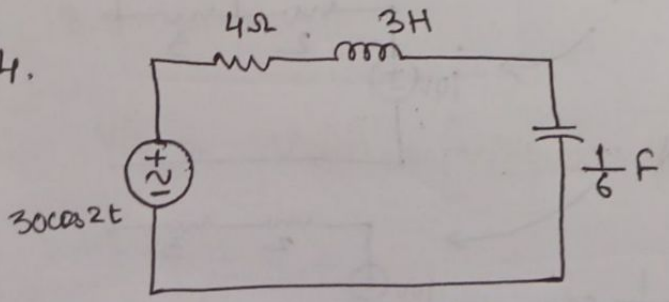
Find I.

3.



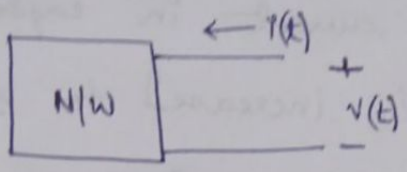
Find Thevenin equivalent voltage across the load.

4.



Find Z, Y, I, V_R, V_L, V_C, P, Q, S, power factor.

5.

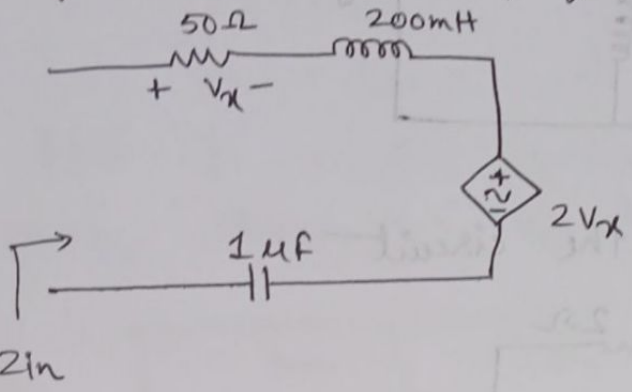


$v(t) = 20\cos(100t - 40^\circ)$

$i(t) = 8\sin(100t + 10^\circ)$

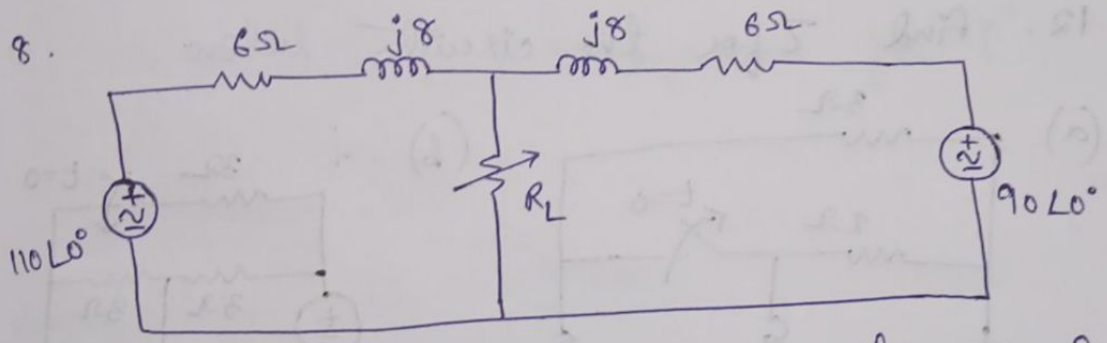
Determine n/w elements.

6. If $\omega = 10k$ rad/sec, find Z_{in}.



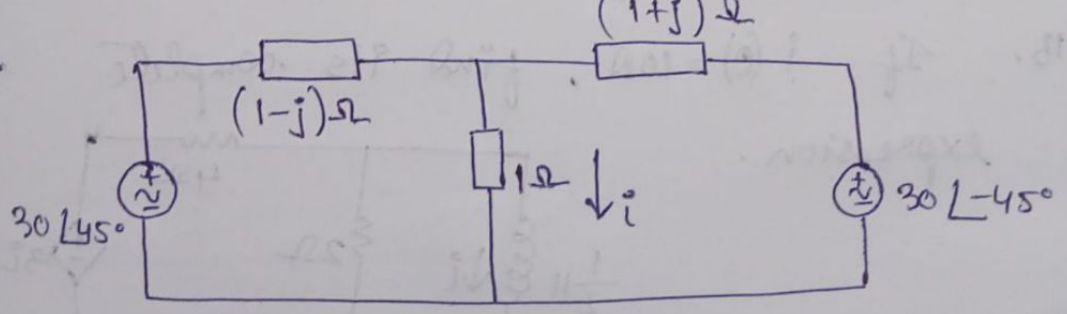
7. If a current of $i(t) = 5\cos(1000t + 100^\circ)$ A is flowing through an impedance of $(4 + 3j)\,\Omega$ then average power is ____ ?

8.



What is the maximum power transferred to the load?

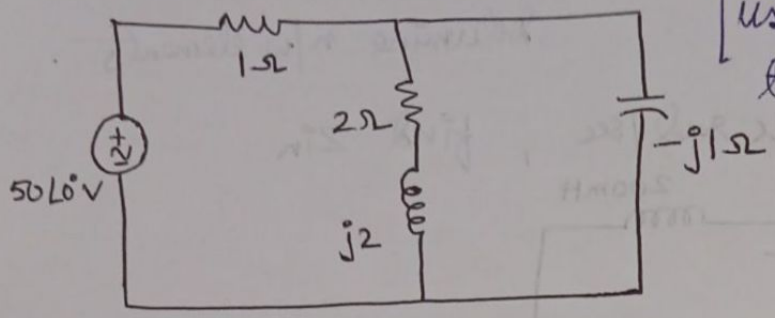
9.



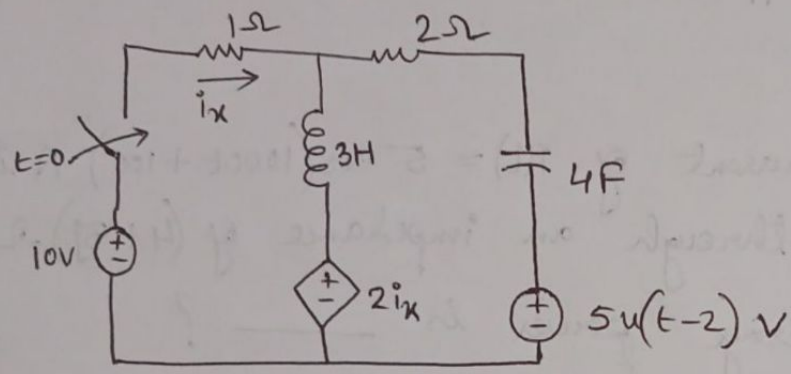
Find i

10. Find change in current in capacitor when 1Ω resistor is increased to 3Ω.

[use compensation theorem]

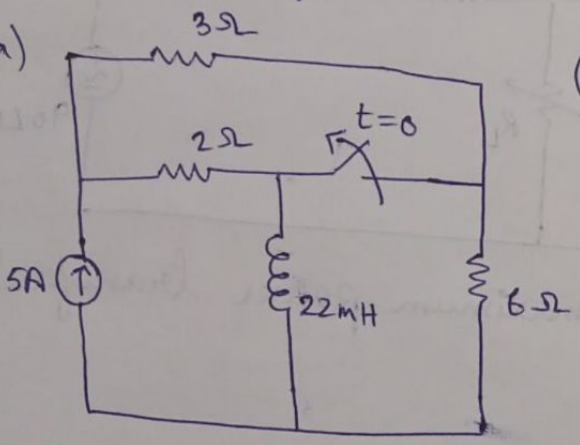


11. Find dual of the circuit.

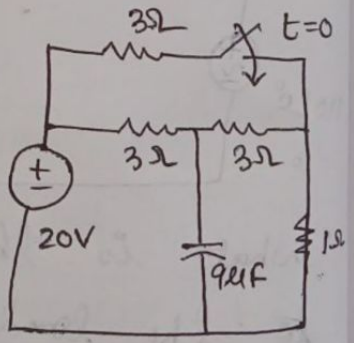


12. Find Z for the circuits below.

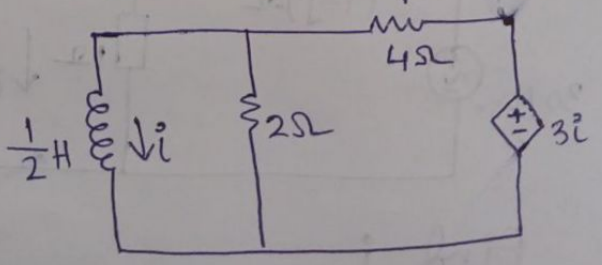
(a)



(b)

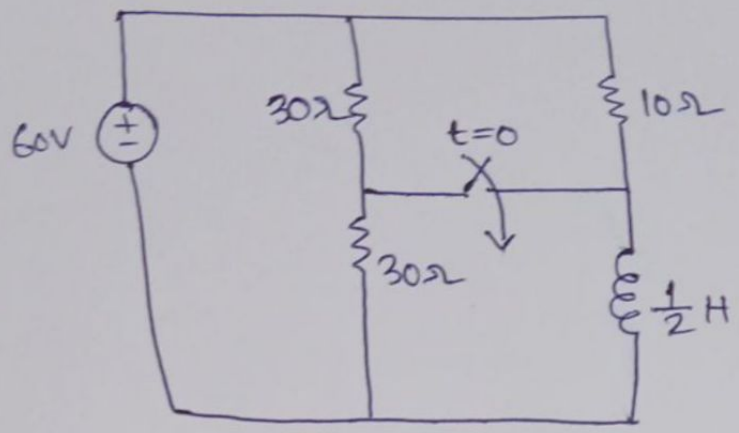


13. If $i(0) = 10A$, find its complete expression.

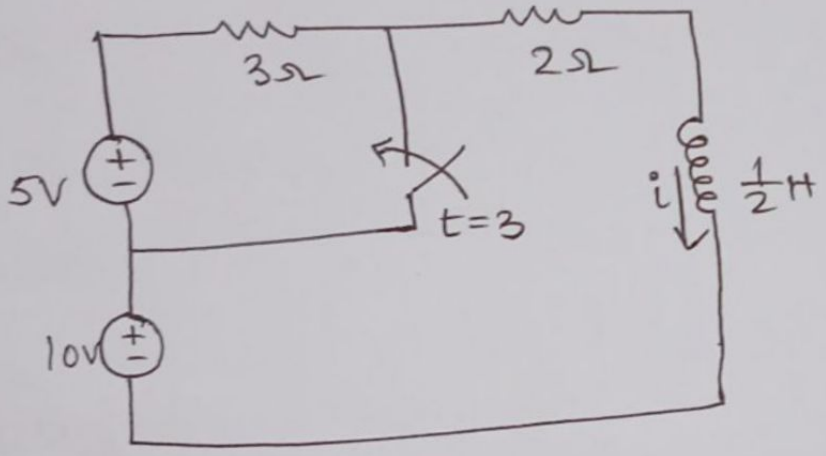


14. Find the complete expression for 'i'

[step response]



15. Find the complete expression for i and the energy stored in inductor upto 3.25 sec.



16. Find the complete expression for 'i'.