

EECS 40, Spring 2007 Prof. Chang-Hasnain

Homework #3

Due at 6 pm in 240 Cory on Wednesday, 2/7/07
Total Points: 100

- Put (1) your name and (2) discussion section number on your homework.
- You need to put down all the derivation steps to obtain full credits of the problems. Numerical answers alone will at best receive low percentage partial credits.
- No late submission will be accepted expect those with prior approval from Prof. Chang-Hasnain.

1. Find the Thevenin equivalent circuit with respect to the terminals a, b in the circuit in Fig.1.
2. Find the maximum power that can be delivered to a resistive load by the circuit shown in Fig. 1. For what value of load resistance is the power maximum?
3. Find the Norton equivalent circuit with respect to the terminals a, b in the circuit shown in Fig.2

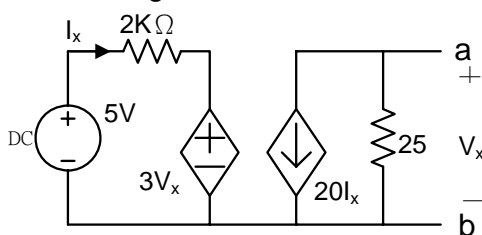


Fig.1

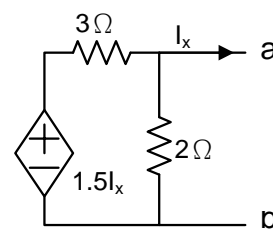
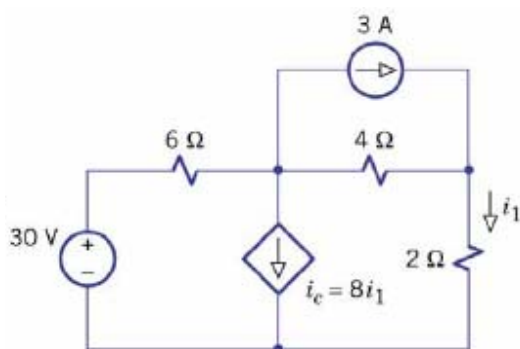


Fig.2

4. Use superposition to find i_1



5. Hambley, P2.70
6. Hambley, P2.85
7. Hambley, P3.9
8. Hambley, P3.22
9. Hambley, P3.32
10. Hambley, P3.45