

UNIVERSITY OF CALIFORNIA AT BERKELEY EECS Department

EECS 40, Summer 2005

Instructor: Octavian Florescu

Homework #2

Due Tuesday, July 05, 2005 at 6PM in HW Box (2nd floor lounge)

Note: Be sure to put (1) your name and (2) discussion section number on your homework. You will get the graded homework back in your discussion session.

Node Voltage Method

Problem 1: Problem 2.43 in the textbook

Problem 2: Problem 2.48 in the textbook

Mesh Current Method

Problem 3: Problem 2.59 in the textbook

Problem 4:

a) Problem 2.60 in the textbook

b) Find the current through the 15 Ohm resistor. How is this current related to the two mesh currents?

Hint: You shouldn't write a KVL equation which includes the current source, as that just adds a new unknown that we're not interested in

Problem 5: Problem 2.62 in the textbook

Capacitors

Problem 6: Problem 3.28 in the textbook

Problem 7: Problem 3.34 in the textbook

Inductors

Problem 8: Problem 3.40 in the textbook

Problem 9: Problem 3.46 in the textbook

First Order Circuits

Problem 10: Problem 4.7 in the textbook

Problem 11: Problem 4.14 in the textbook

Problem 12: Problem 4.23 in the textbook

Problem 13: Problem 4.30 in the textbook