

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

DEPARTMENT OF ELECTRICAL ENGINEERING

SECOND SEMESTER 2007/2008

EE 204 MAJOR EXAM I

LOCATION:

DATE: Tuesday 25/3/2008

TIME: 8:30-10:00 PM

Student's Name: _____

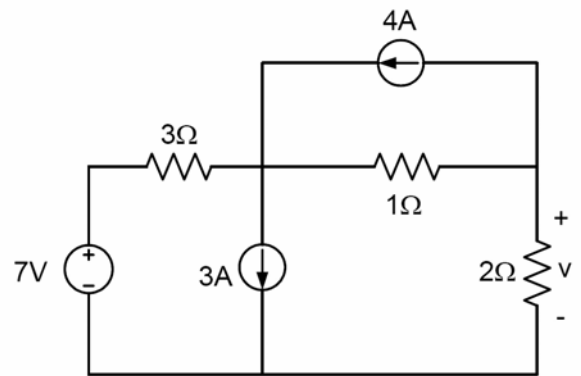
Student's I.D. Number: _____

Section Number: _____

	Maximum Score	Score
Problem 1	15	
Problem 2	15	
Problem 3	15	
Total	45	

Problem 1:

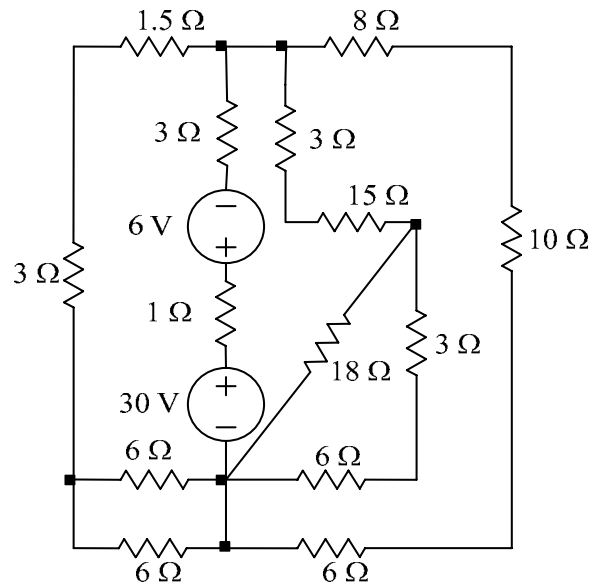
Apply the superposition principle to determine the voltage v in the circuit shown.



Problem2:

In the circuit shown, find the power absorbed by the $1.5\ \Omega$ resistor $P_{1.5\Omega}$.

(Note: no need to find the power of the other resistors except the $1.5\ \Omega$ resistor)



Problem 3:

Apply source transformations to reduce the circuit shown to a single loop, then find v_x .

