EEL 3041 Exam 1 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SHOW ALL WORK!**

Problem 1 (30 pts) In the network below,

*I*



b

a

+

\_

3 V

6 V

+

\_





c

d

e

Find 1. *I* 2. 3. 4. 5. 6.

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**SHOW ALL WORK!**

Problem 2 (30 pts) In the circuit below,

*I*2

*I*1

+

*V*

\_





12 mA

Find

7. the current *I*1

8. the current *I*2

9. the power absorbed by resistor *R*1

10. the power absorbed by resistor *R*2

11. the voltage *V*

12. the power supplied by the current source is

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**SHOW ALL WORK!**

Problem 3 (40 pts)

 



*c*

*a*

*b*







+

\_

200 *V*











*d*

13. The equivalent resistance seen by the 200 *V* source, *Req* is

14. The current *I*1 is

15. The current *I*2 is

16. The current *I*3 is

17. The current *I*4 is

18. The voltage  is

19. The voltage 

20. The power supplied by the 200 V source is