

EE 206 Test #1d - Name _____

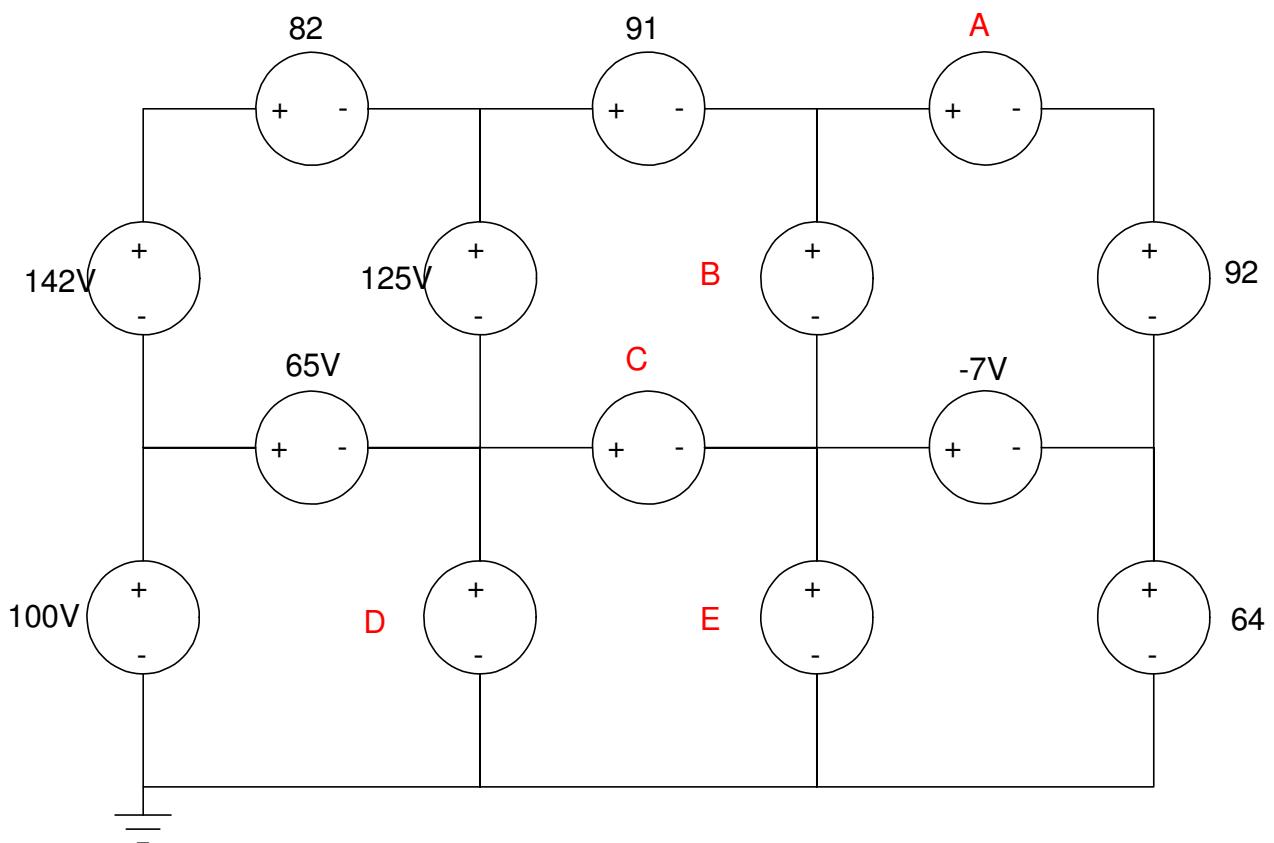
Resistors, Current Loops, Voltages Nodes. Due May 7th at midnight

Open book, open notes, internet, calculators, matlab permitted. Individual effort only.

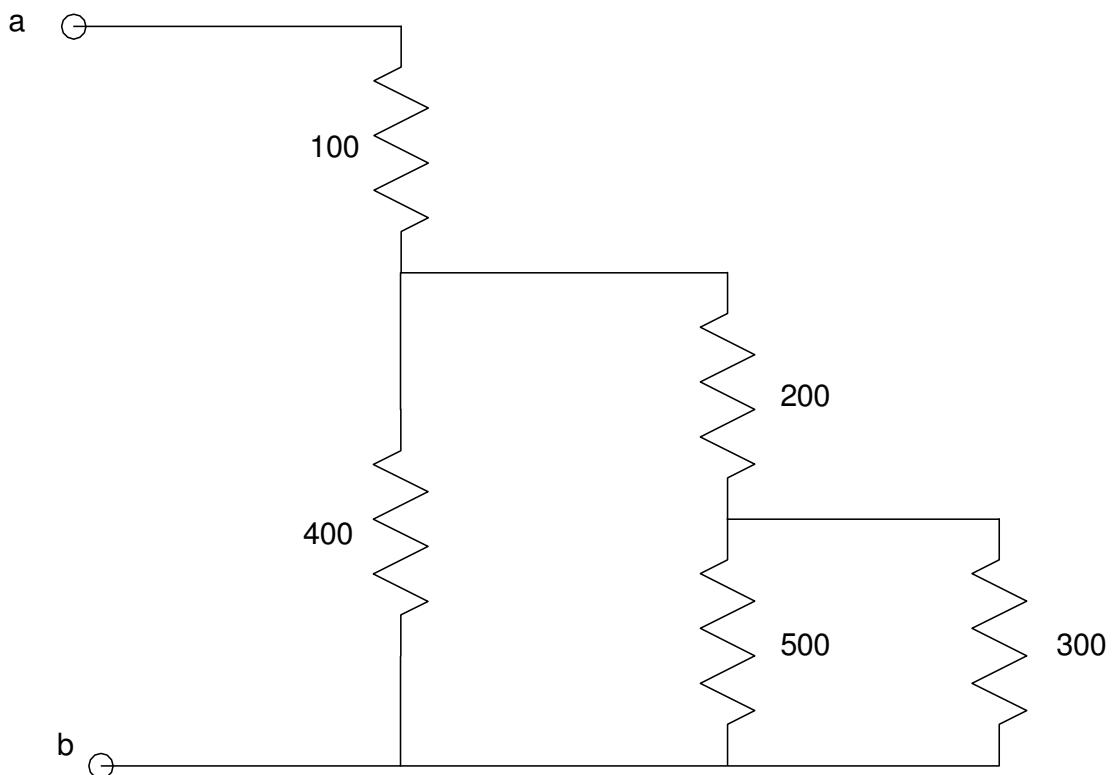
No aid given, received, or observed: (signature) _____

- 1) Kirchoff's Laws. Determine the unknown voltages (they can be negative)

| V1 | V2 | V3 | V4 | V5 |
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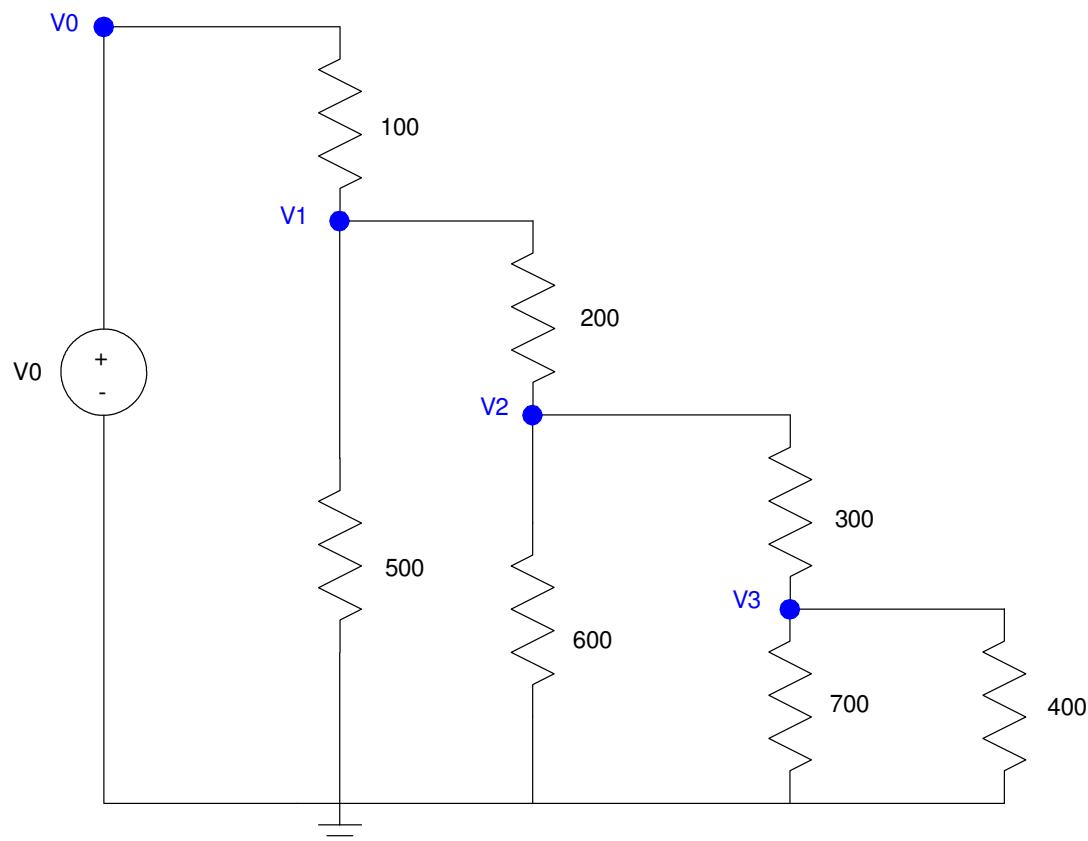


2) Determine the resistance R_{ab}



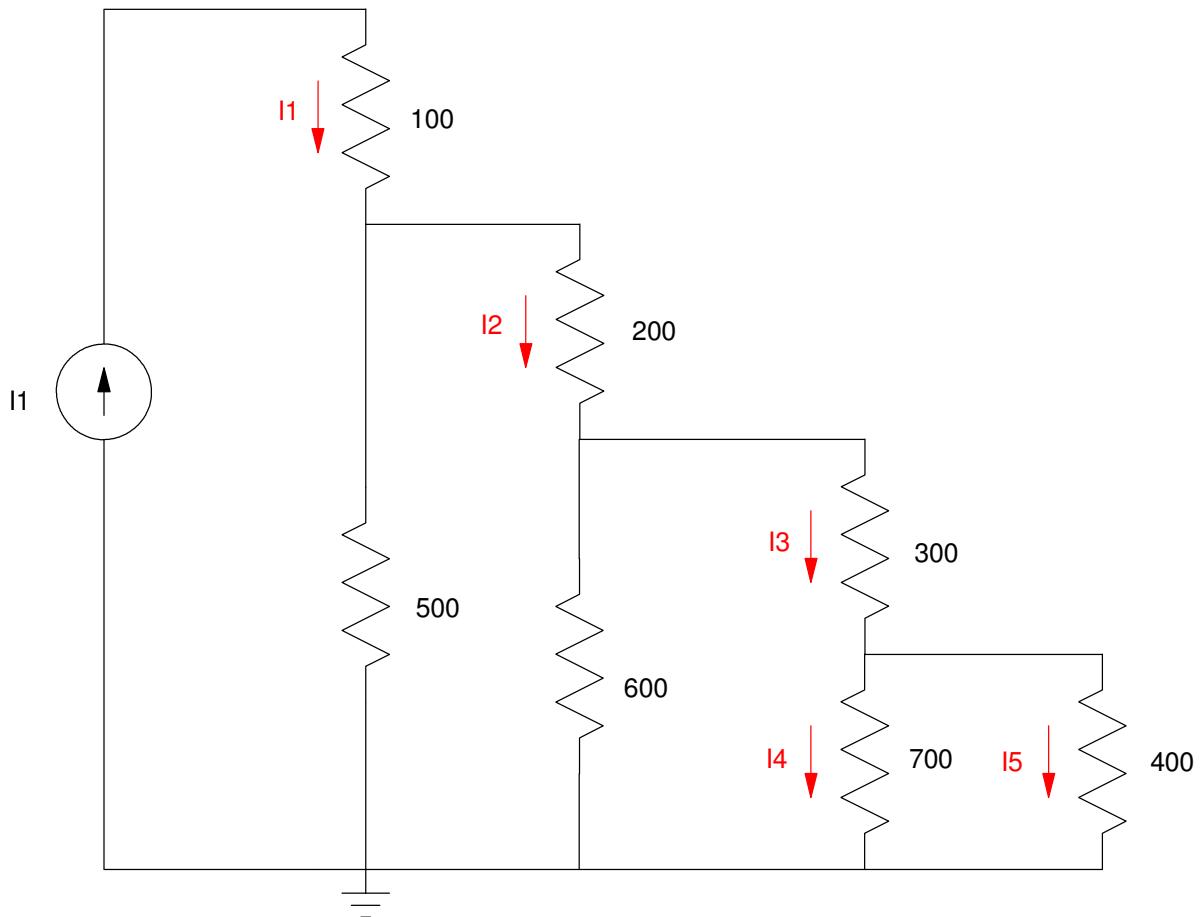
3) Voltage Division. Use voltage division to determine the voltages V1 .. V3

| V0 | V1 | V2 | V3 |
|----|----|----|--------------|
| | | | 100 V |

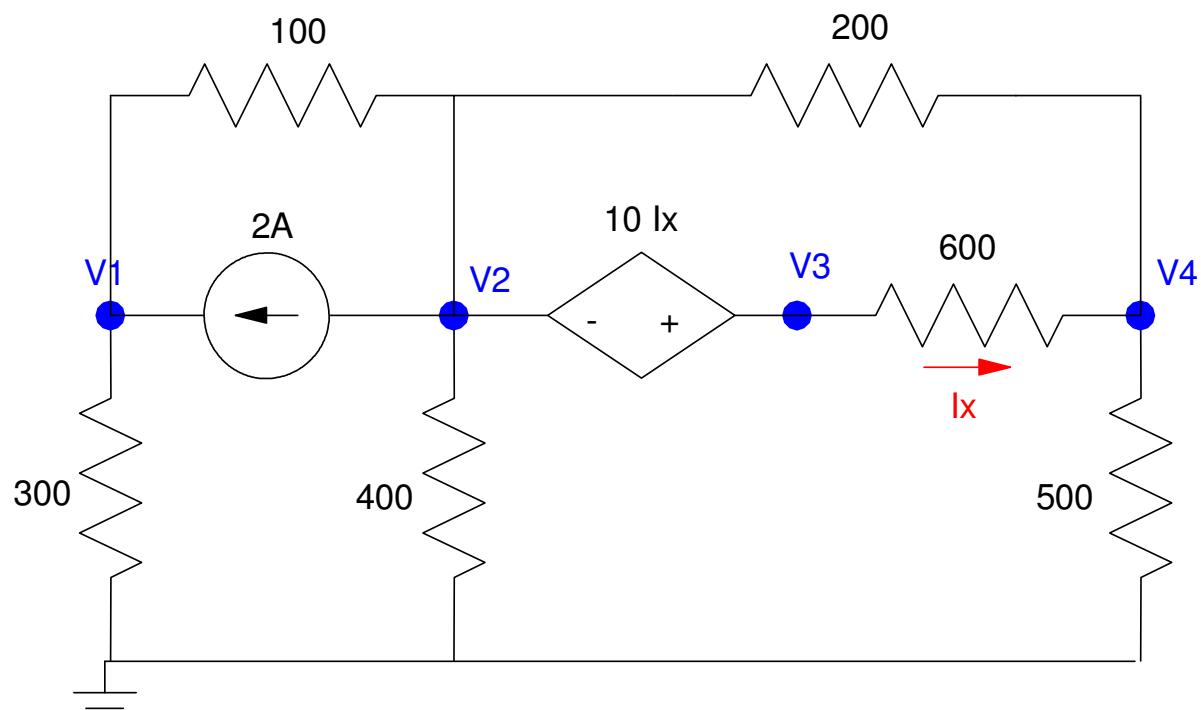


4) Current Division. Determine the currents

| I1 | I2 | I3 | I4 | I5 |
|----|----|---------------|----|----|
| | | 100 mA | | |

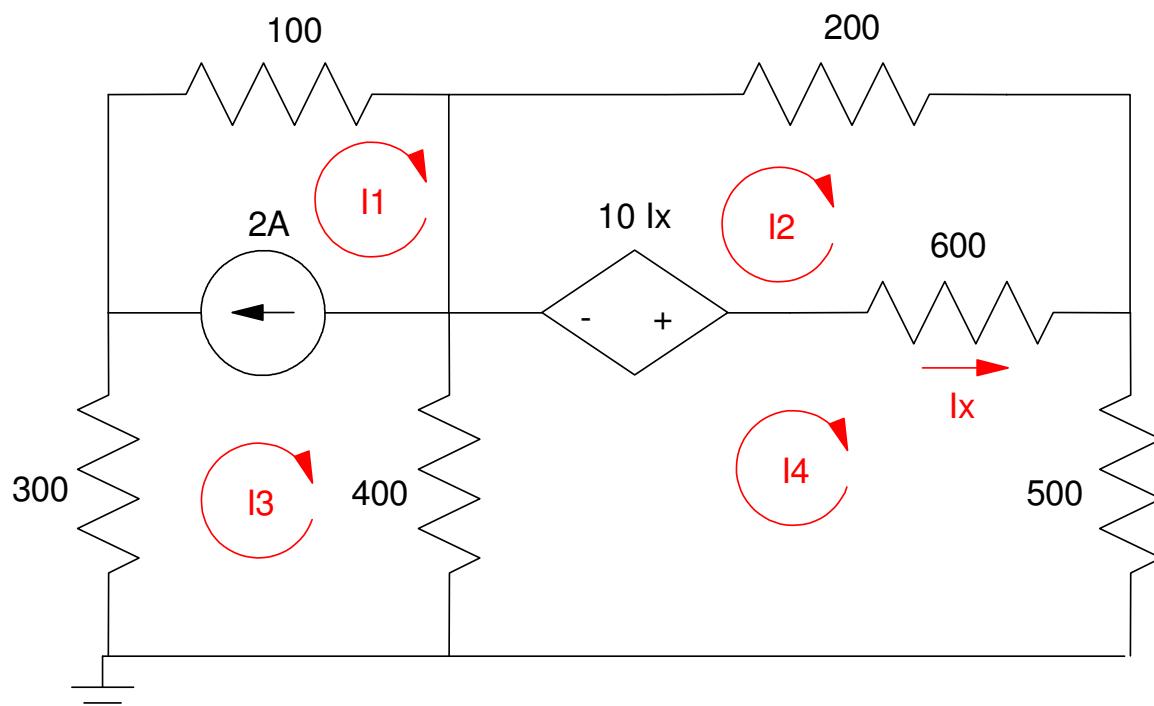


5) Voltage Nodes: Write 5 equations to solve for the 5 unknowns.



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6) Current Loops. Write 5 equations to solve for 5 unknowns



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