

# EE 206 Test #1c - Name \_\_\_\_\_

Resistors, Current Loops, Voltages Nodes. April 27, 2020

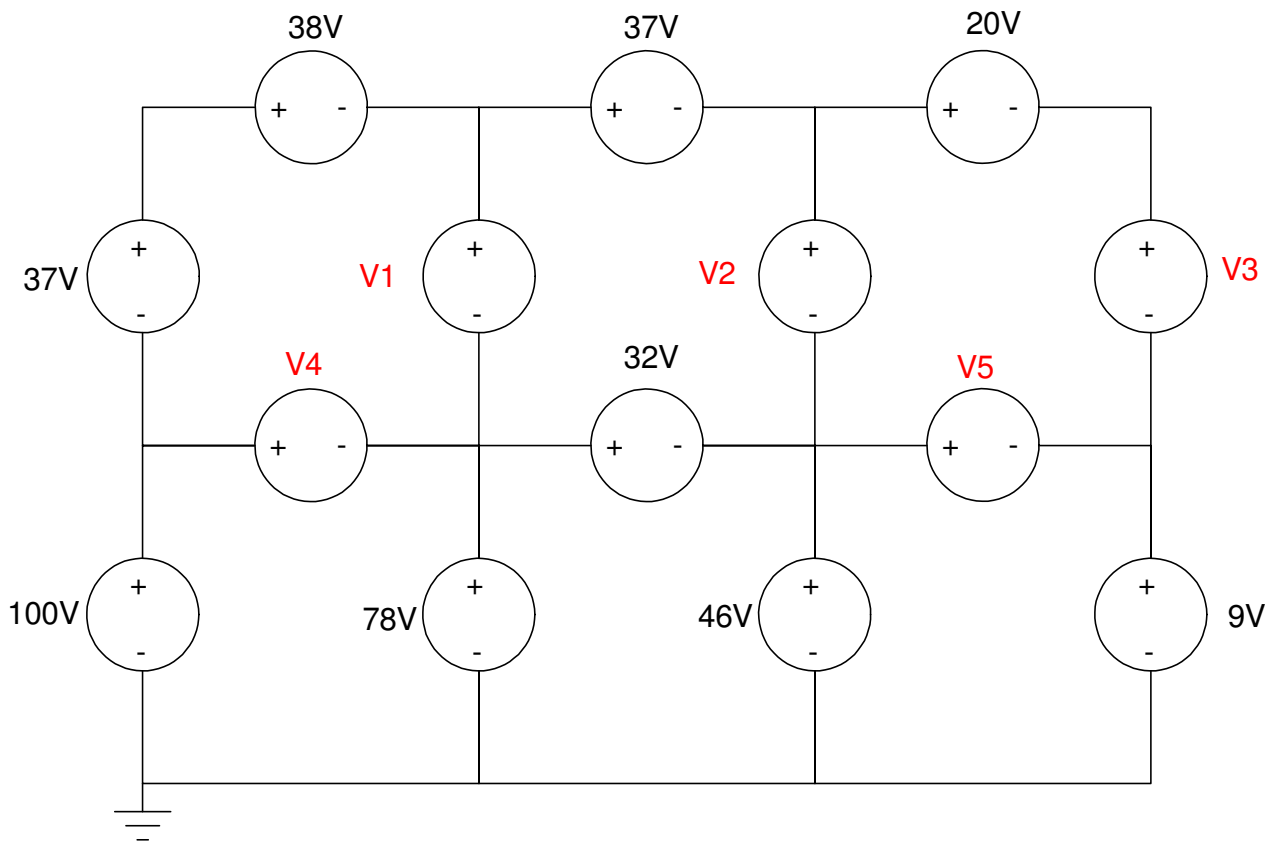
Due Tuesday, April 28th at midnight (solutions posted on Wednesday)

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

No aid given, received, or observed: (signature) \_\_\_\_\_

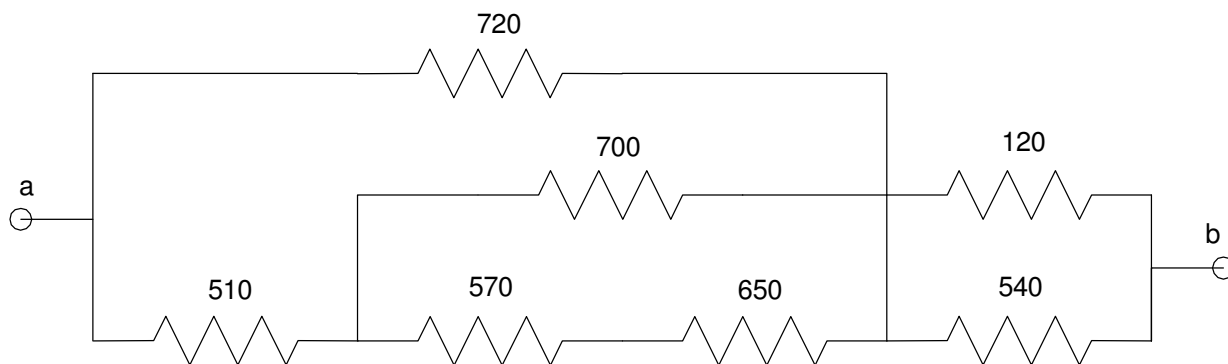
1) Kirchoff's Laws. Determine the unknown voltages

V1	V2	V3	V4	V5



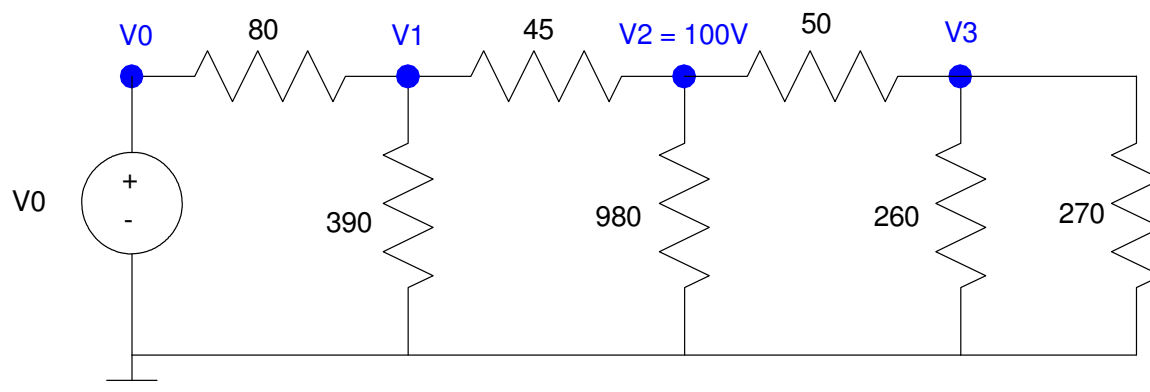
2) Determine the resistance  $R_{ab}$

$R_{ab} =$



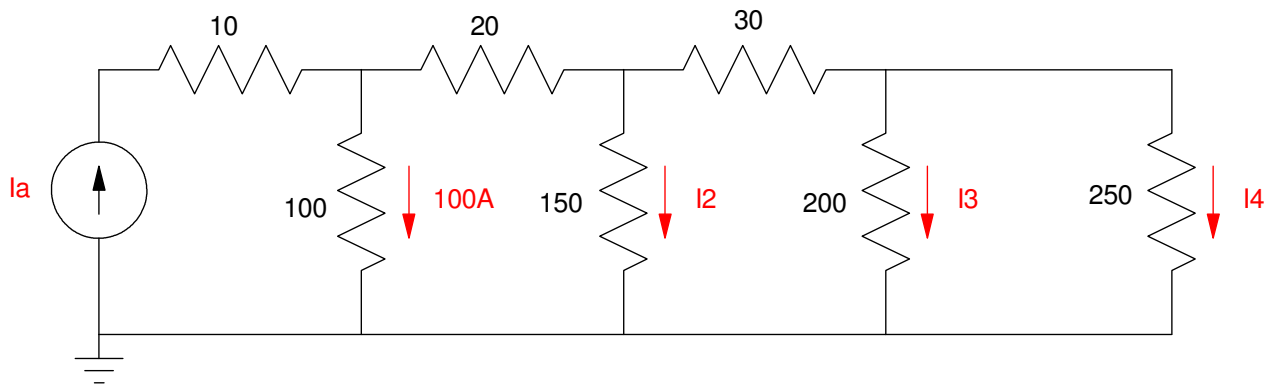
3) Voltage Division. Use voltage division to determine the voltages  $V_1$  ..  $V_3$

V0	V1	V2	V3
		<b>100V</b>	

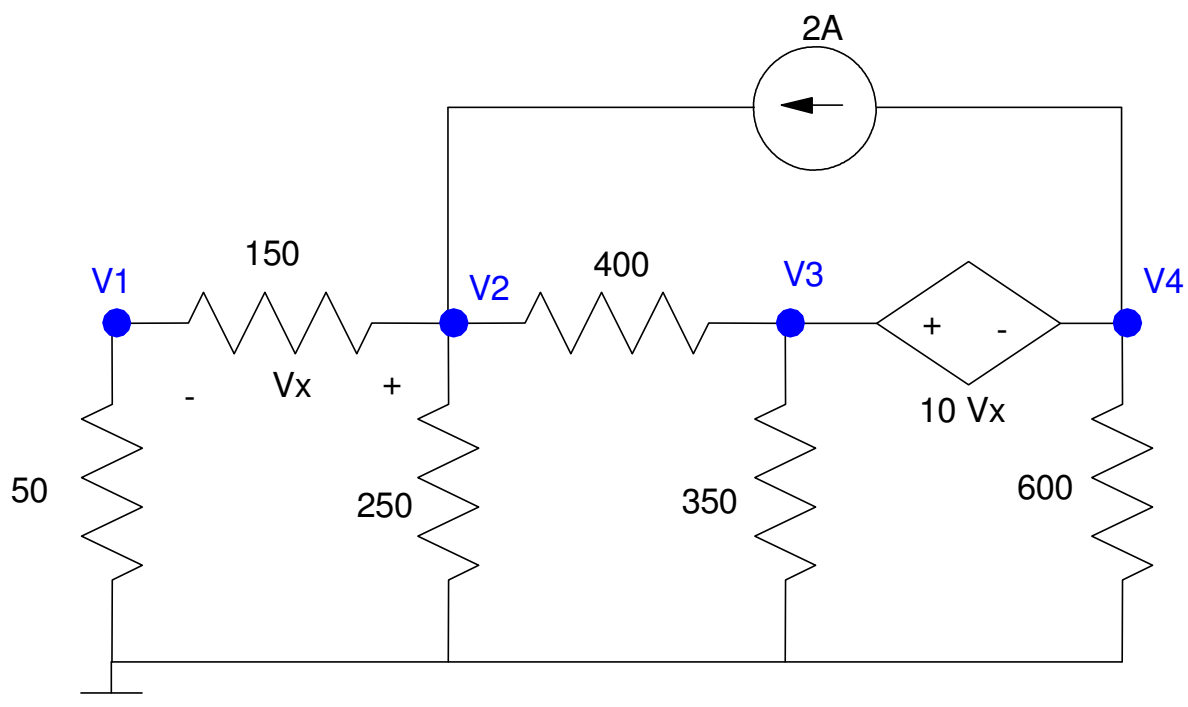


4) Current Division. Determine the currents given that  $I_1 = 100A$

$I_a$	$I_2$	$I_3$	$I_4$



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




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

