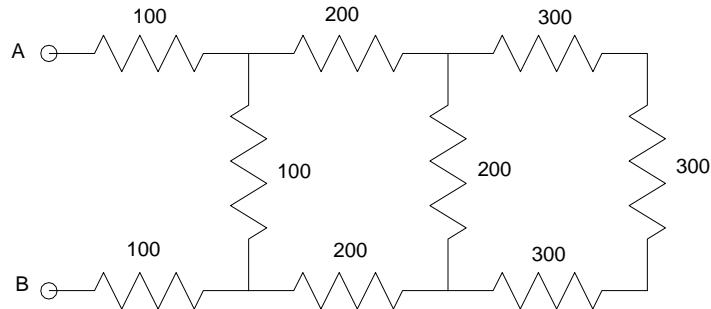


ECE 331 - Homework #1

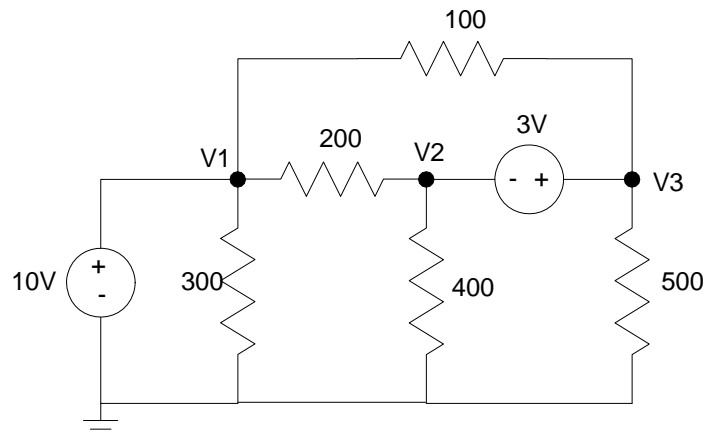
Kirchoff's Laws, Complex Numbers. Due Wednesday, January 22nd, 4PM

1) Determine the resistance of the following circuit:



2) For the following circuit, write N equations to solve for N unknown voltage nodes (KVN)

3) Solve these N equations to find the voltages V1, V2, and V3



Complex Numbers: Determine the value of Y - showing the steps to find the solution.

4) $Y = \left(\frac{10(s+3)}{(s+1)(s+5)} \right)_{s=j4}$

5) $Y = e^{(2+j3)}$

6) $Y = \ln(2 + j3)$

7) $(2 + j3)^{(4+j5)}$