ECE 321 - Quiz #1 - Name _____

Op-Amp Amplifiers, Push-Pull amplifiers. Due midnight, April 9th

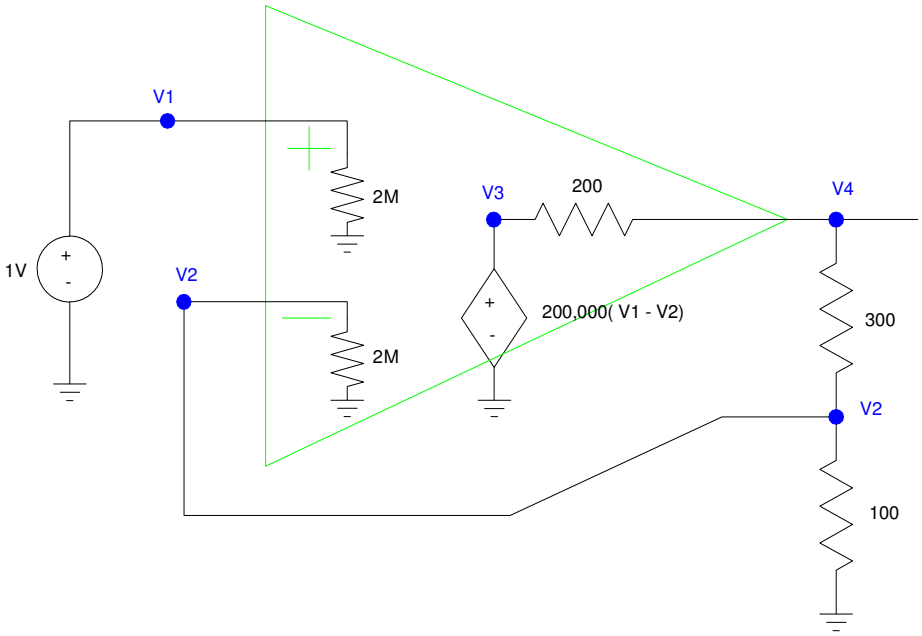
Calculators, internet, Matlab permitted.

Please sign pledge if able (i.e. you did not work with anyone else)

No aid given, received, or observer: _____

1) Determine the voltages V1,,V5

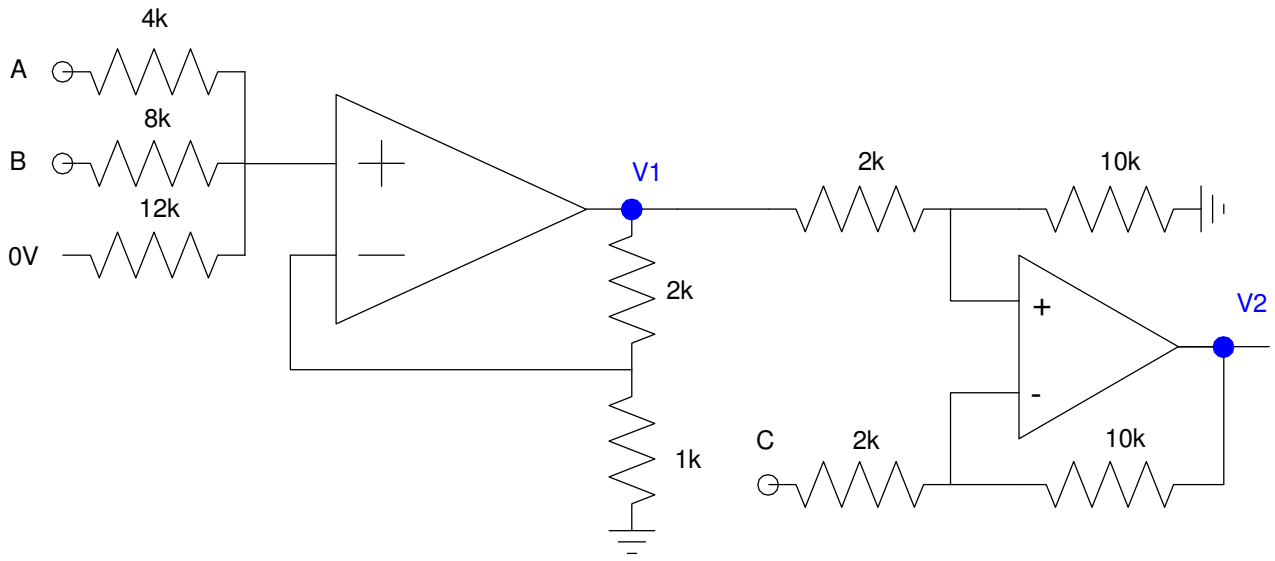
V1	V2	V3	V4



2) Assume signals A, B, C are 1Vpp signals in the range of 20-1000 Hz, capable of driving 1mA. Design an amlifier so that the output is

$$Y = 8A + 2B + 7C$$

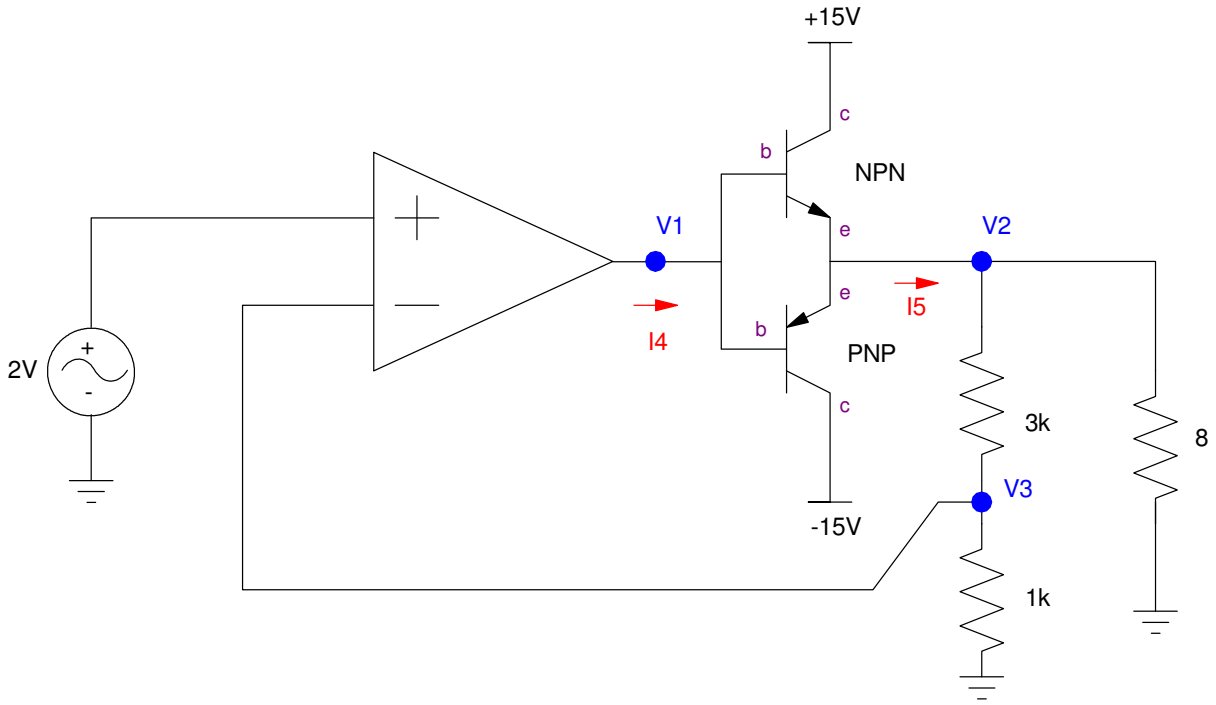
3) Determine V2 as a funciton of A, B, and C. Assume ideal op-amps



4) Determine the voltages for the following push-pull amplifier. Assume TIP transistors

- | Vbe | = 1.4V
- beta = 1000

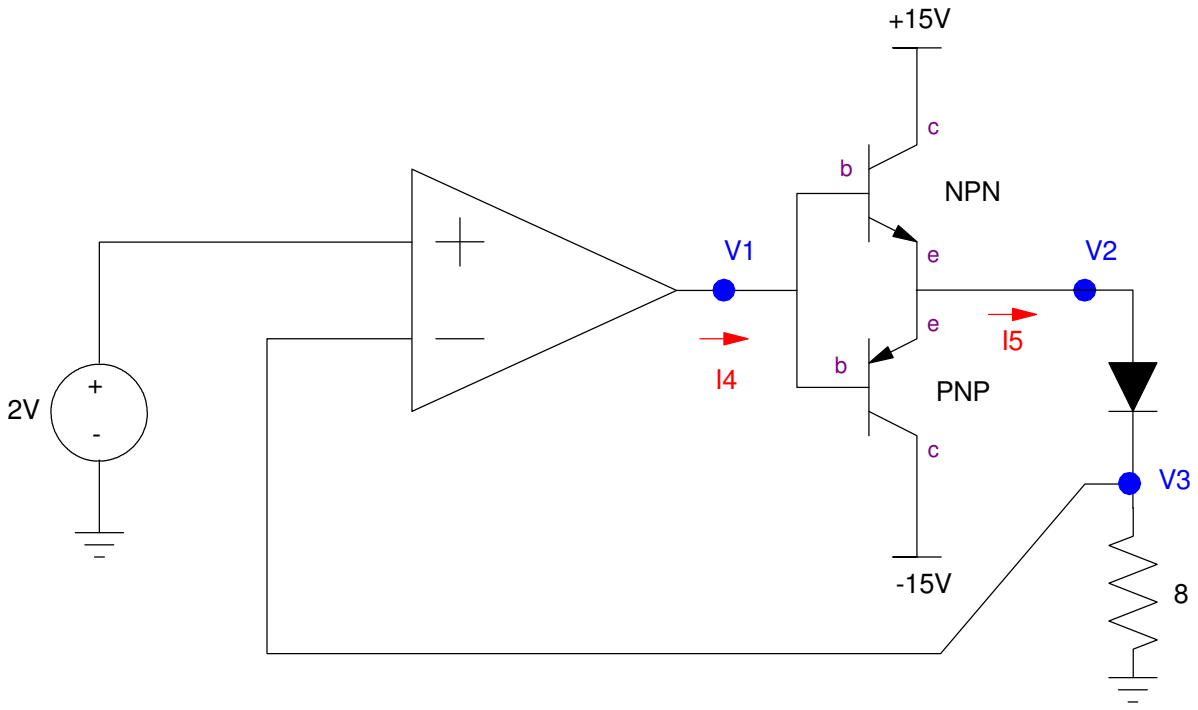
V1	V2	V3	I4	I5



5) Determine the voltages for the following push-pull amplifier. Assume TIP transistors

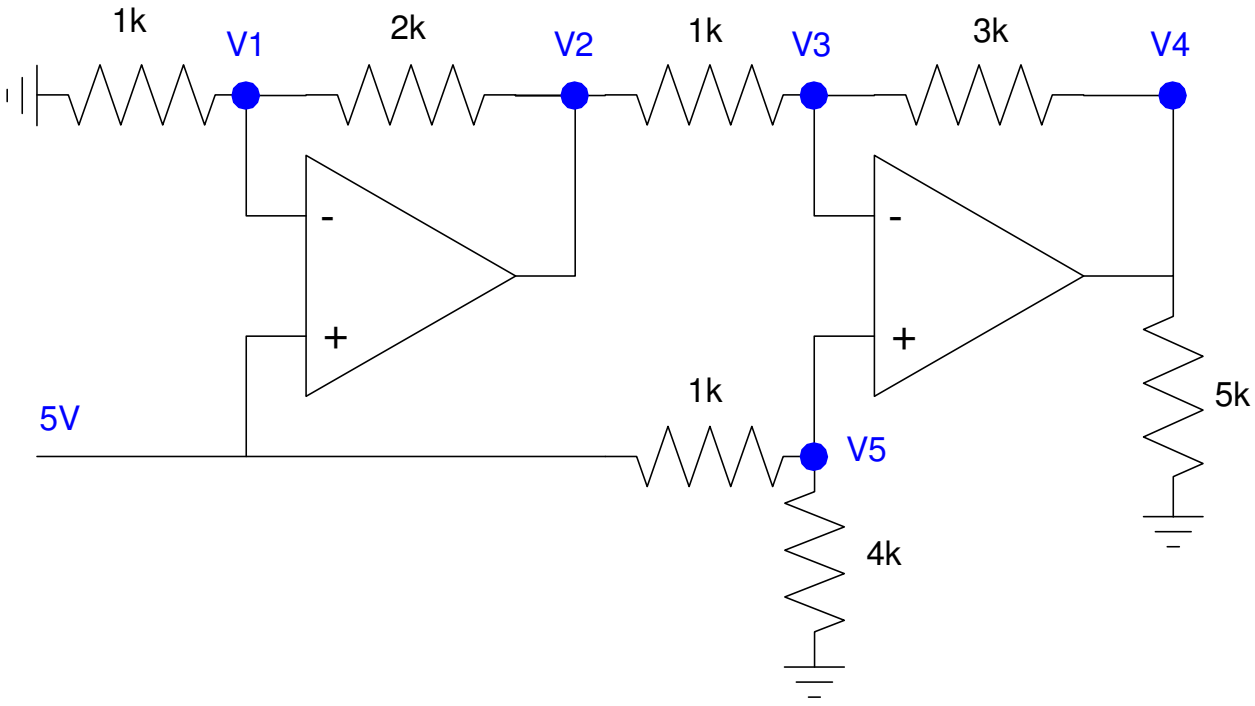
- | Vbe | = 1.4V
- beta = 1000

V1	V2	V3	I4	I5



6) Determine the voltages for the following op-amp circuit. Assume ideal op-amps

V1	V2	V3	V4	V5



Bonus: What answer voltages does CircuitLab (or PartSim or a similar circuit simulator) give for problem #6?

V1	V2	V3	V4	V5

6)