

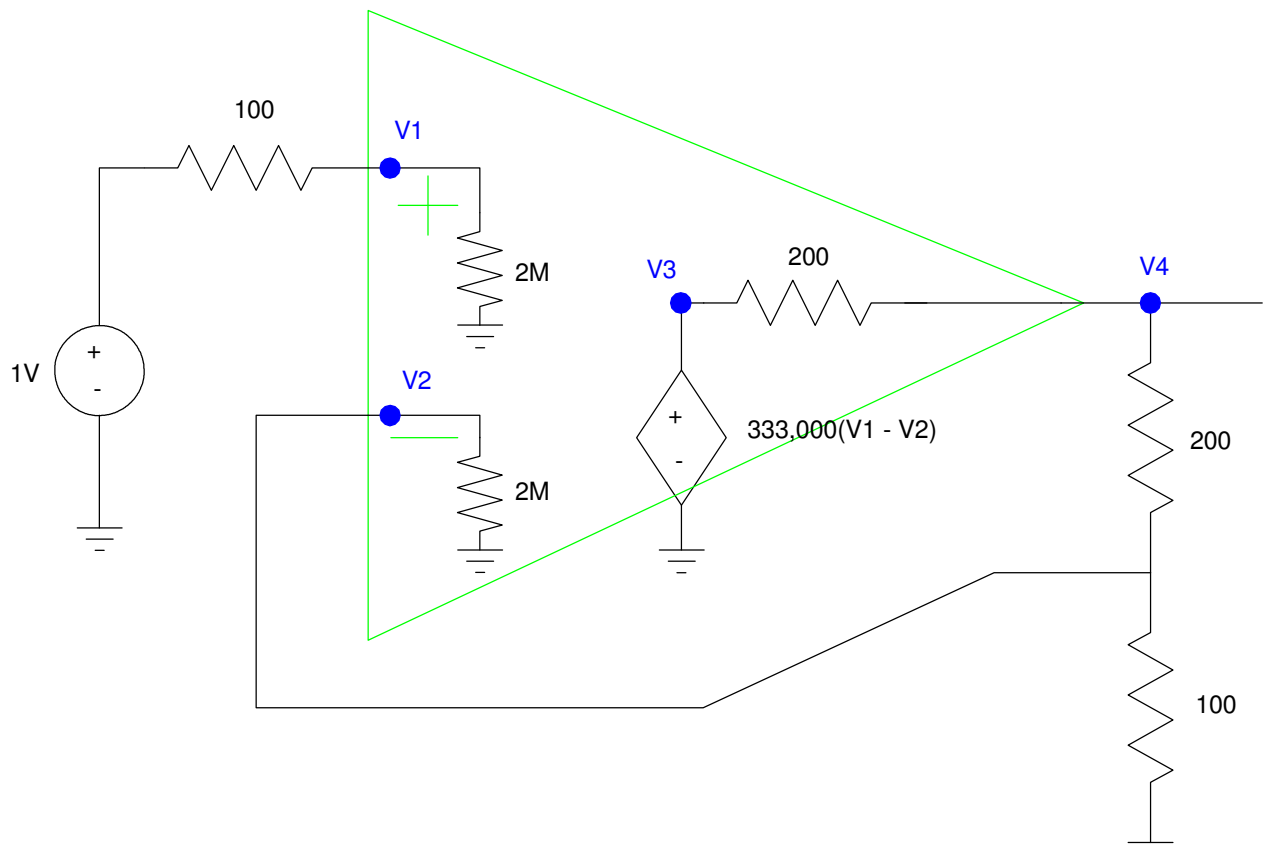
ECE 321 - Quiz #1 - Name _____

Op-Amp Amplifiers, Push-Pull amplifiers.

Calculators, internet, Matlab permitted.

1) Determine the voltages V1..V4

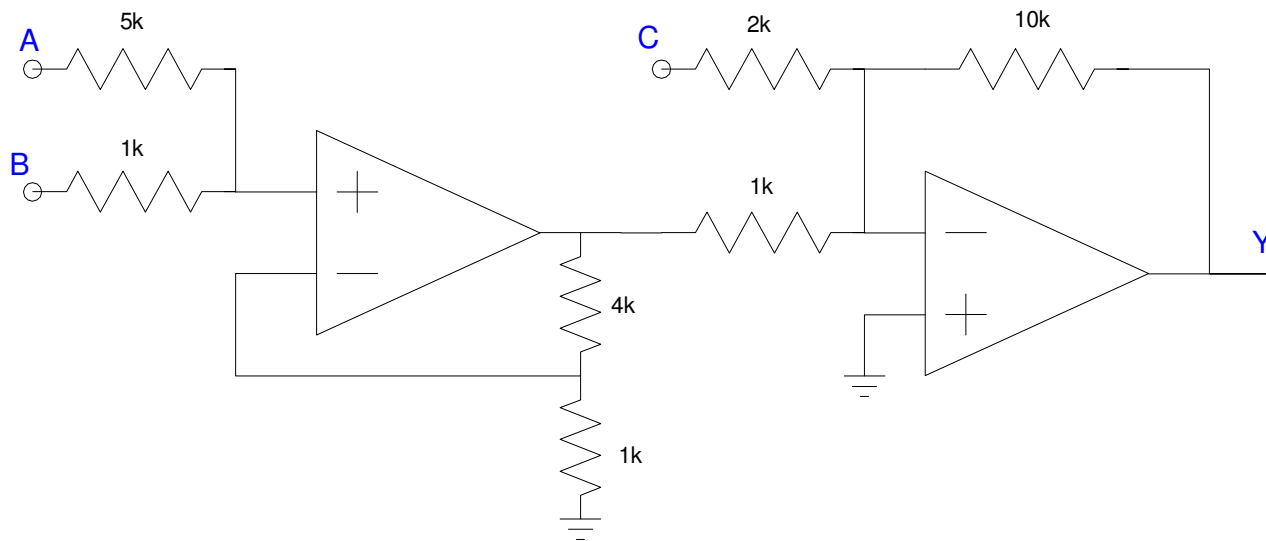
V1	V2	V3	V4



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

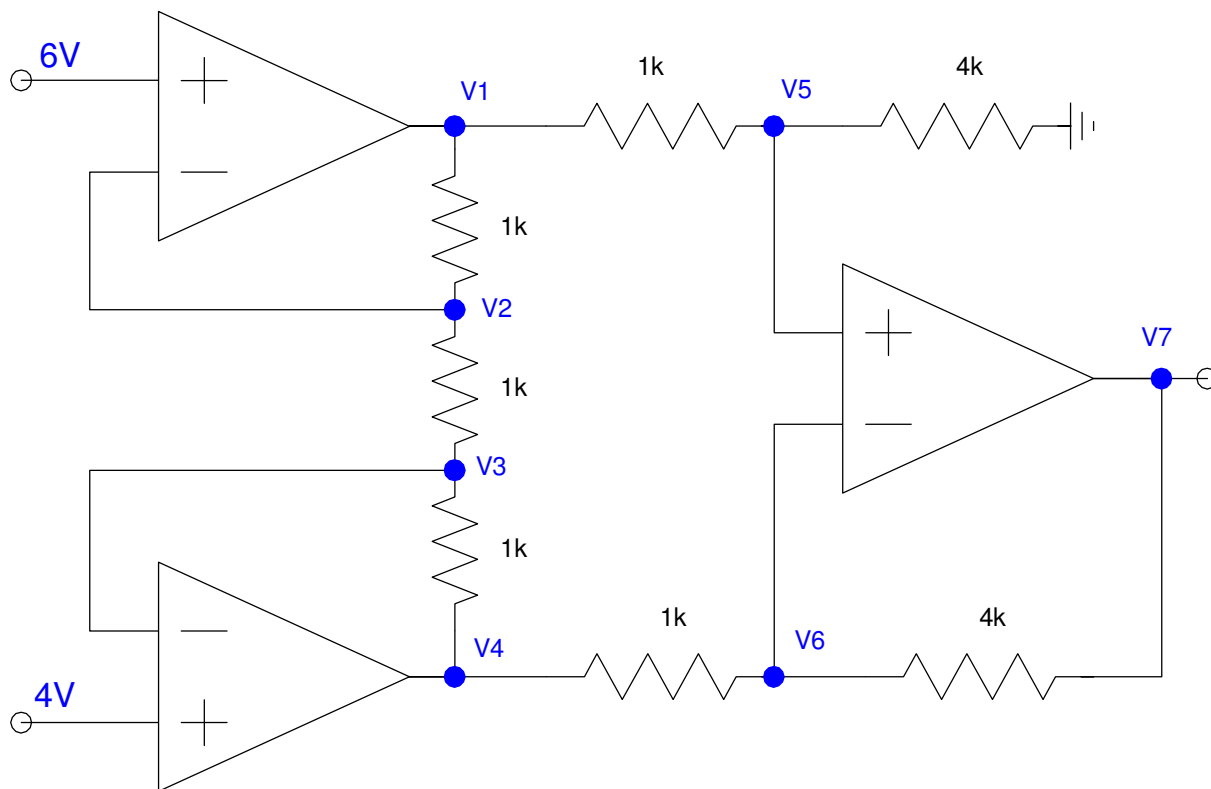
$$Y = 3A + 10B + 2C$$

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



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

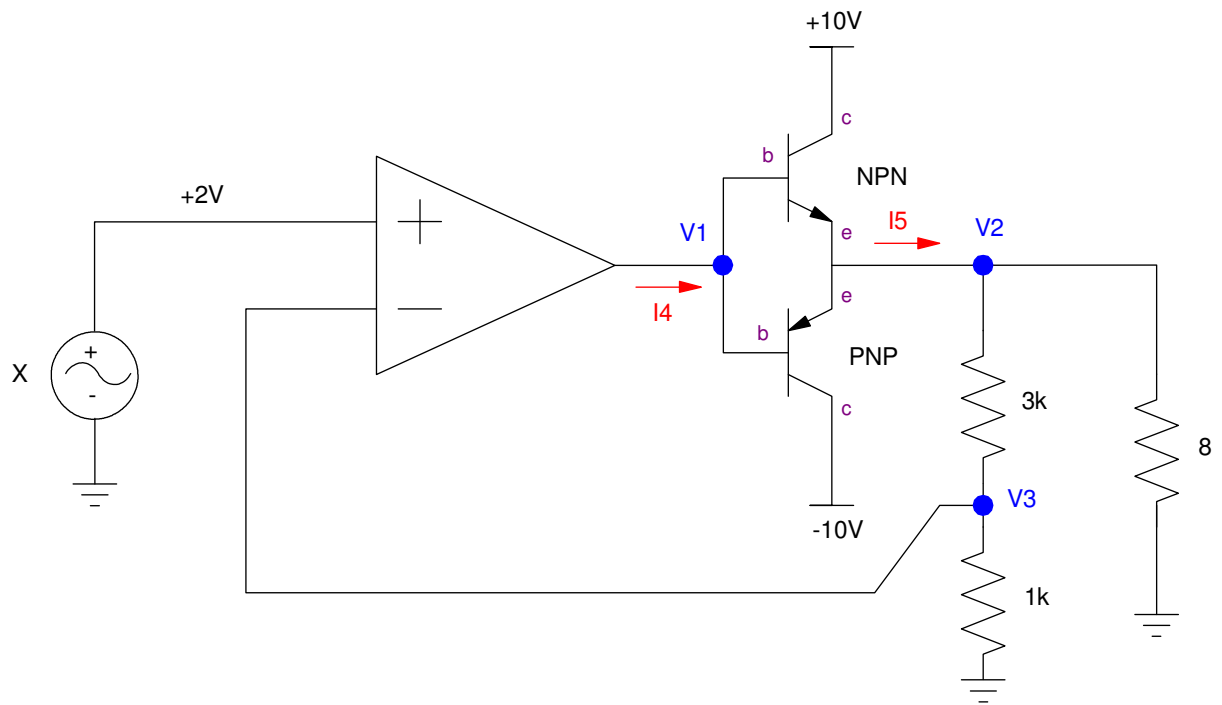
V1	V2	V3	V4	V5	V6	V7



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

- $|V_{be}| = 0.7V$
- $\beta = 100$

V1	V2	V3	I4	I5



6) Determine the voltages for the following push-pull amplifier. Assume

- $|V_{be}| = 0.7V$
- $\beta = 100$

V1	V2	V3	I4	I5

