Source and Measure DC voltages
Alice Meter-Source

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Intro to ECSE
Build Circuit on Protoboard

- CH A used to source variable DC voltages and Ain pin used to measure DC voltages. 
  - Put channel A in Split I/O mode
- CHB or Bin used to measure DC voltages
  - Voltage measurements with respect to GND
- GND connection to M1K

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ECSE 1010

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Experimentally determine voltage drop across each element

- Change CH A voltage
- Put CH A in split I/O mode
- Voltage across R1
  - $\text{CAV} - \text{CBV}$
- Voltage across R2 and R3
  - $\text{CBV} - \text{GND} = \text{CBV}$

- Using these voltage measurements we can determine the current through the resistors.
Due tonight

1. Activity 3
2. PS 4

PS 5 available.
Current Division

\[ i_1 R_1 = i_2 R_2 \]

\[ i = i_1 + i_2 \]

\[ i_1 = i \times \frac{R_2}{R_1 + R_2} \]

\[ i_2 = i \times \frac{R_1}{R_1 + R_2} \]

If \( R_2 = 0 \),

\[ i_1 = \frac{V}{R_1} \]

\[ i_0 = 0 \]