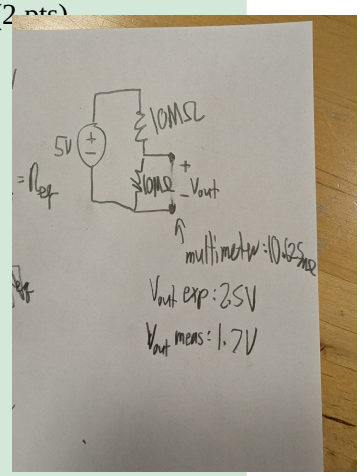
2.5: Practical Voltage and Current Measurement (25 points total)

1. Provide the expected output voltage for both ideal and non-ideal voltmeters, based on your pre-lab analysis. (5 pts)

Ideal: 2.5V

Non-ideal: 1.726V

2. Provide a circuit schematic below; include measured resistance values on your schematic. (2 pts)



3. In the space below, provide your measured output voltage and your estimated value of the internal resistance of the voltmeter of your DMM. Comment on your results, especially relative to the effects of the voltmeter on the quantity being measured. (7 pts)

10.024MΩ resistors

Our estimated value for the resistance of the voltmeter using the voltage splitting formula is 10.625KΩ

These are plausible results based on data for the fluke multimeter we found online.

4. In the space below, provide your measured output voltage and your estimated value of the internal resistance of the voltmeter of your Analog Discovery. Comment on your results, especially relative to the effects of the voltmeter on the quantity being measured. (6 pts)

Our measured output voltage was ~1.726V across the 10KΩ
and our resulting estimate for the value of the internal resistance of the voltmeter
was 10.625MΩ. As stated above, this is an expected result.

5. **DEMO**: Have a teaching assistant initial this sheet, indicating that they have observed your circuit's operation. (5 pts)

   TA Initials: _____