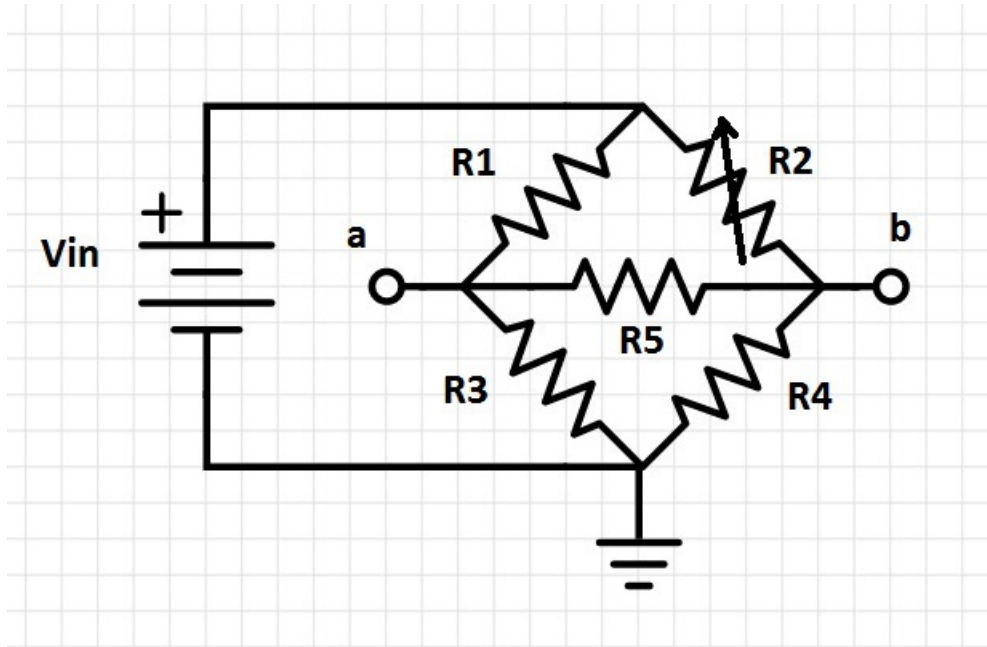


Due date: Shown on the LULearn (Blackboard).

Plot $V_{out} = a - b$, versus R_2 in the range from $1\text{ k}\Omega$ to $100\text{ k}\Omega$ in the following diagram. Use $R_1 = R_3 = R_4 = R_5 = 20\text{ k}\Omega$ and $V_{in} = 10\text{ V}$.



Please submit:

1. Matrix form of your equation.
2. MATLAB code.
3. MATLAB plot screenshot.
4. Solve (Hand calculate it and include the work with your report) the equation using $R_1 = R_3 = R_4 = R_5 = 20\text{ k}\Omega$, $R_2 = 40\text{ k}\Omega$, and $V_{in} = 10\text{ V}$, then compare it with your MATLAB plot.