Notes

- Round all of your recorded results to three significant digits but carry more digits in your intermediate calculations.

Part I

Given the following values:

- $V = 8\text{V}$
- $R_1 = 10\text{k}\Omega$
- $R_2 = 20\text{k}\Omega$
- $R_3 = 30\text{k}\Omega$

Use the voltage divider law correctly to calculate the voltage at all circuit nodes (please label).
Part II

For the circuit at the right, calculate the unknown node voltages and the unknown mesh currents. In both cases, calculate $V_x$.

$I_1$ ____________ mA

$I_2$ ____________ mA

$I_3$ ____________ mA

$V_2$ ____________ V

$V_3$ ____________ V

$V_x$ using mesh currents: ____________ V

$V_x$ using node voltages: ____________ V