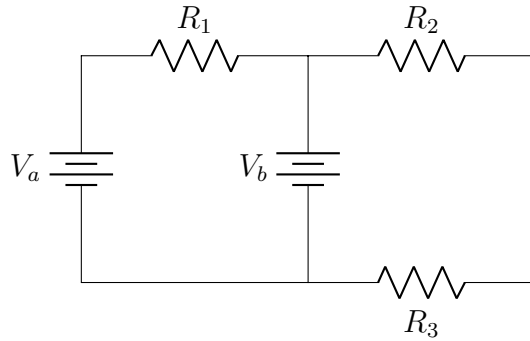


1. Consider the following circuit:



Given the following values: $V_a = 6\text{ V}$, $V_b = 12\text{ V}$, $R_1 = 220\ \Omega$, $R_2 = 270\ \Omega$, and $R_3 = 680\ \Omega$, find the current in each branch of the circuit and the potential difference across each resistor.