4. Black box *(9 points)* *Equipment:* electrical black box with three outlets, battery, voltmeter.

It is known that inside the black box, there are three resistors (connected with wires in an unknown manner), the smallest of which is $R_1 = 100\,\Omega$. Find the value of the largest resistor R_3. What can be said about the middle-valued resistor R_2? Estimate the uncertainties of your results.