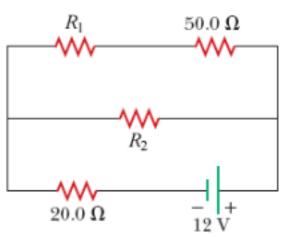
Four resistors are connected to a battery with a terminal voltage of 12 V, as shown in the figure below. (Assume $R_1 = 39.0 \Omega$ and $R_2 = 89.0 \Omega$.)

(i)



(a) How would you reduce the circuit to an equivalent single resistor connected to the battery? Use this procedure to find the equivalent resistance of the circuit.

(b) Find the current delivered by the battery to this equivalent resistance.

(c) Determine the power delivered by the battery.

(d) Determine the power delivered to the $50.0-\Omega$ resistor.

W