

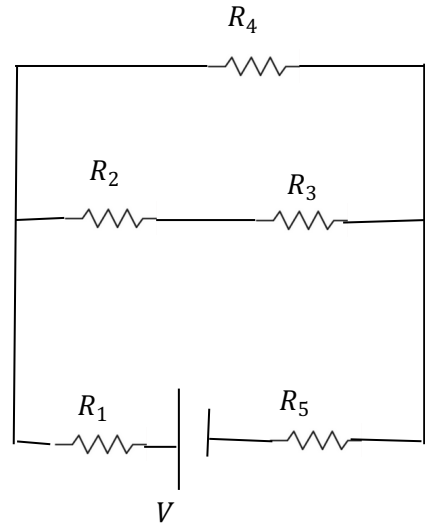
Name _____

Physics 111 Quiz #3, October 7, 2022

Please show all work, thoughts and/or reasoning in order to receive partial credit. The quiz is worth 10 points total.

I affirm that I have carried out my academic endeavors with full academic honesty.

1. Consider the following circuit below in which some resistors are wired to a battery ($V = 20V$). Let all the resistors have the same resistance $R = 100\Omega$. What is the effective resistance of the circuit?



2. What is the total current produced by the battery?

- What is the current through resistor R_4 ?
- What is the potential difference across resistor R_2 ?
- What fraction of the total energy produced by the battery (per second) is lost as heat/light across resistor R_5 (per second)?