

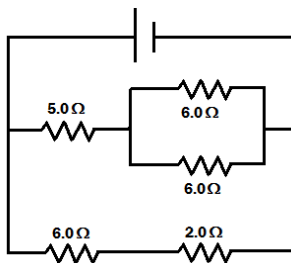
Name _____
Honors Physics
Period _____

Date _____
Electric Circuits WS #10H
Mrs. Nadworny

Combination Circuits

Directions: Read online textbook pages 746 – 751. Solve the following problems using the GUESS method and proper significant figures. Be sure to show ALL work.

1. A circuit contains five resistors as shown. The total current flowing through the circuit is 3.71 A.



a. Calculate the equivalent resistance of the circuit.

- Step 1:

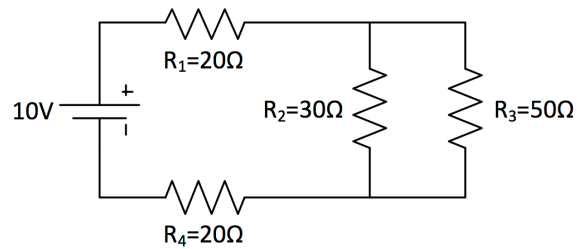
- Step 2:

- Step 3:

- Step 4:

b. Calculate the total voltage provided by the cell.

2. A circuit contains four resistors (20. ohms, 30. ohms, 50. ohms, and 20. ohms) as shown. The total voltage provided by the cell is 10. volts.



- a. Calculate the equivalent resistance of the circuit.
- b. Calculate the total current flowing through the circuit.
- c. Calculate the voltage across each resistor.

Answers in size order: 0.17, 3.0, 3.2 (3), 3.4, 3.4, 4.0, 8.0, 8.0, 15, 59