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Honors Physics
Period _____

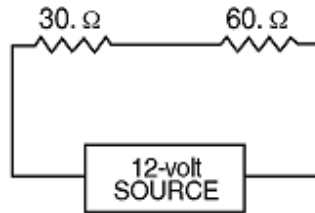
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Date _____
Electric Circuits WS #5H
Mrs. Nadworny

Series Circuit

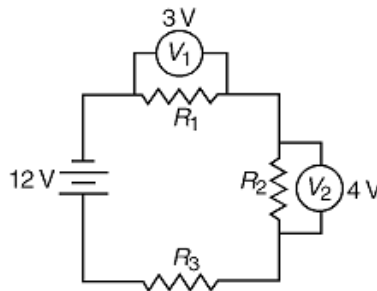
Directions: Read online textbook pages 730 – 740. Solve the following problems using the GUESS method and proper significant figures. Be sure to show ALL work.

1. A 30. ohm resistor and a 60. ohm resistor are connected in an electric circuit as shown below.



Compared to the electric current through the 30. ohm resistor, the electric current through the 60. ohm resistor is

- (A) larger (B) smaller (C) the same
2. The diagram below shows three resistors, R_1 , R_2 , R_3 , connected to a 12 volt battery.



If voltmeter V_1 reads 3 volts and voltmeter V_2 reads 4 volts, what is the potential drop across resistor R_3 ?

- (A) 5 V (B) 12 V (C) 0 V (D) 4 V
3. Three resistors, 7.0 Ω, 9.0 Ω, and 3.0 Ω, are in series in a circuit. The total current flowing through the circuit is 4.23 A.
- Calculate the equivalent resistance of the circuit.
 - Calculate the potential difference supplied by the battery.

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