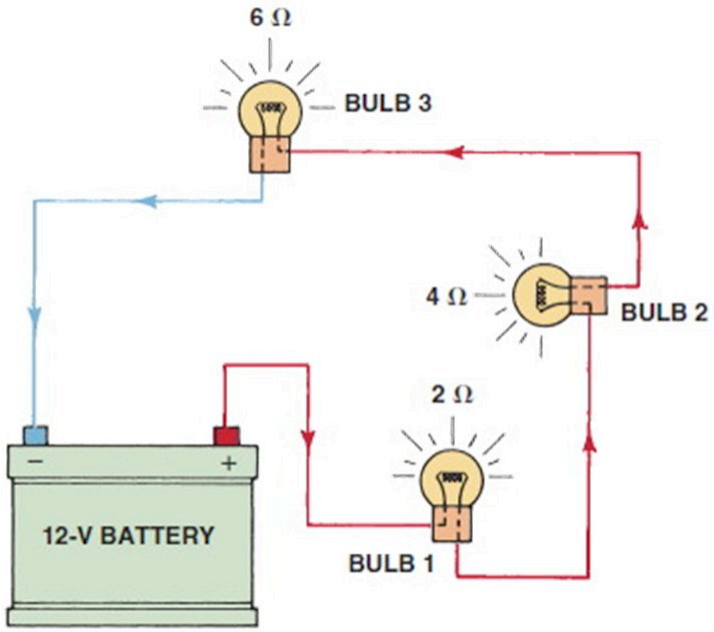
Automotive Technology 6th Edition
Chapter 41 - Series, Parallel, and Series-Parallel Circuits
Quiz 41A

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Which one of the bulbs in this circuit will drop (use up) the most voltage? 1) _____

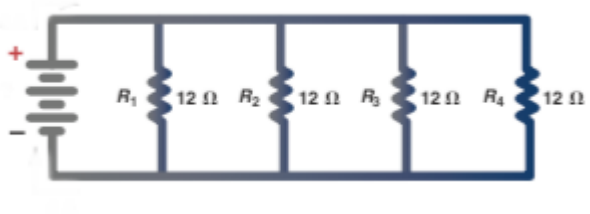


A) Bulb 1
B) Bulb 2
C) Bulb 3
D) They will all drop the same amount of voltage

2) In a series–parallel circuit, how is the total resistance in the circuit determined? 2) _____
A) All of the resistances are added together.
B) The series resistance values are added together and then subtracted from the resistances in parallel.
C) The parallel resistance values are added together and then subtracted from the resistance in series.
D) None of the above

3) The voltage drop for each branch of a parallel circuit is _____. 3) _____
A) equal
B) reduced by the resistance of loads in each branch
C) increased by the resistance of loads in each branch
D) none of these

4) What is the total resistance of this circuit? 4) _____

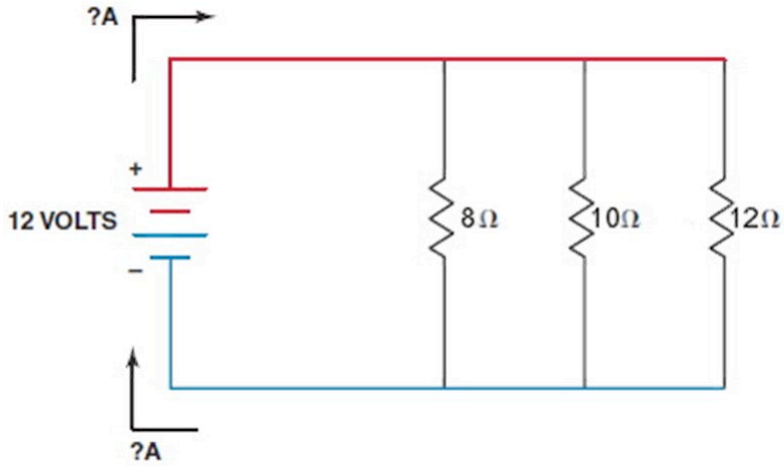


A) 4 ohms
B) 36 ohms
C) 3 ohms
D) Not enough information

5) The sum of the voltage drops in a series circuit equals the _____. 5) _____

A) amperage
B) resistance
C) source voltage
D) wattage

6) What is the total current flow in this parallel circuit? 6) _____



A) 3.7 A
B) 0.4 A
C) 2.5 A
D) Not enough information

7) A series circuit has two 10-ohm bulbs. A third 10-ohm bulb is added in series. Technician A says that the three bulbs will be dimmer than when only two bulbs were in the circuit. Technician B says that the current in the circuit will increase. Which technician is correct? 7) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

8) The amperage in a series circuit _____. 8) _____

A) is the same anywhere in the circuit
B) varies in the circuit due to the different resistances
C) is high at the beginning of the circuit and decreases as the current flows through the resistance
D) is always less returning than leaving the battery

9) In a series circuit, total circuit resistance is equal to the _____ of the resistance of all loads in the circuit. 9) _____

A) sum
B) difference
C) dividend
D) none of these

10) Technician A says that the sum of the voltage drops in a series circuit should equal the source voltage. Technician B says the current (amperes) varies depending on the value of the resistance in a series circuit. Which technician is correct? 10) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

Answer Key
Testname: AT6_41A

1) C
Page Ref: 470
2) D
Page Ref: 476
3) A
Page Ref: 472
4) A
Page Ref: 474
5) C
Page Ref: 470
6) A
Page Ref: 473
7) A
Page Ref: 469
8) A
Page Ref: 470
9) A
Page Ref: 470
10) C
Page Ref: 469