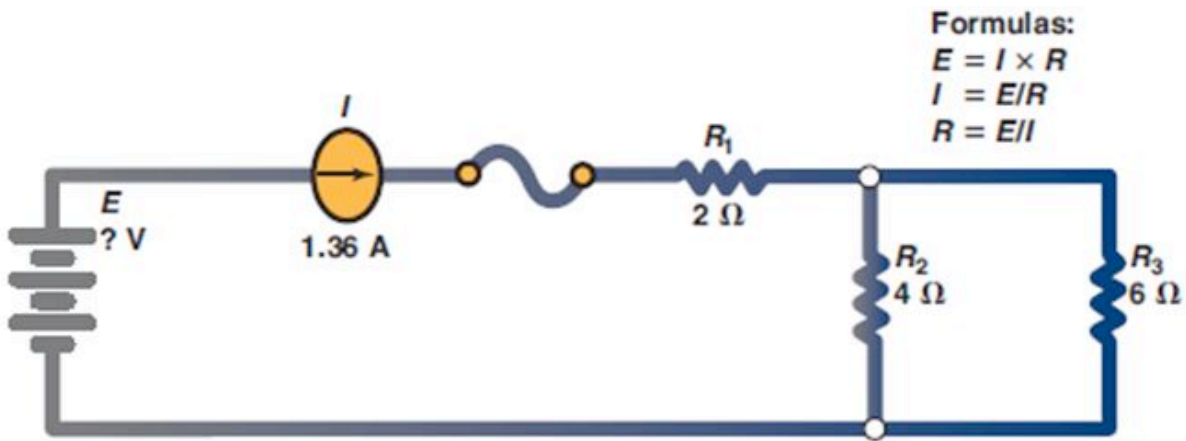


Name _____

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

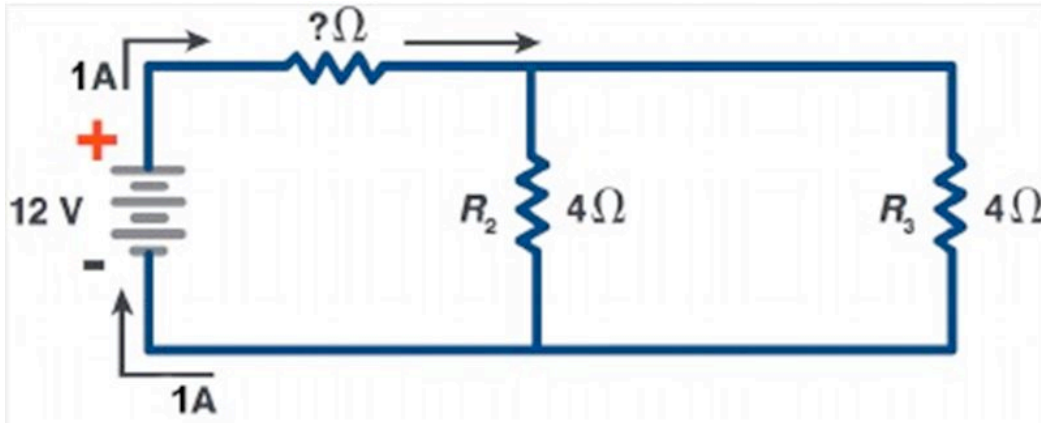
- 1) Which of the following is true regarding series-parallel circuits? 1) _____
- A) Voltages are always equal across each load divided by the source voltage in the branches.
 - B) Current is equal throughout the circuit.
 - C) Only one current path is possible.
 - D) Source voltage minus any voltage drop across loads wired in series is the parallel voltage.
- 2) See **Figure 8-10** to solve for voltage (E) and total resistance (R_T). 2) _____



$E =$
 $R_1 = 2 \Omega$
 $R_2 = 4 \Omega$
 $R_3 = 6 \Omega$
 $R_T =$
 $I = 1.36 \text{ A}$

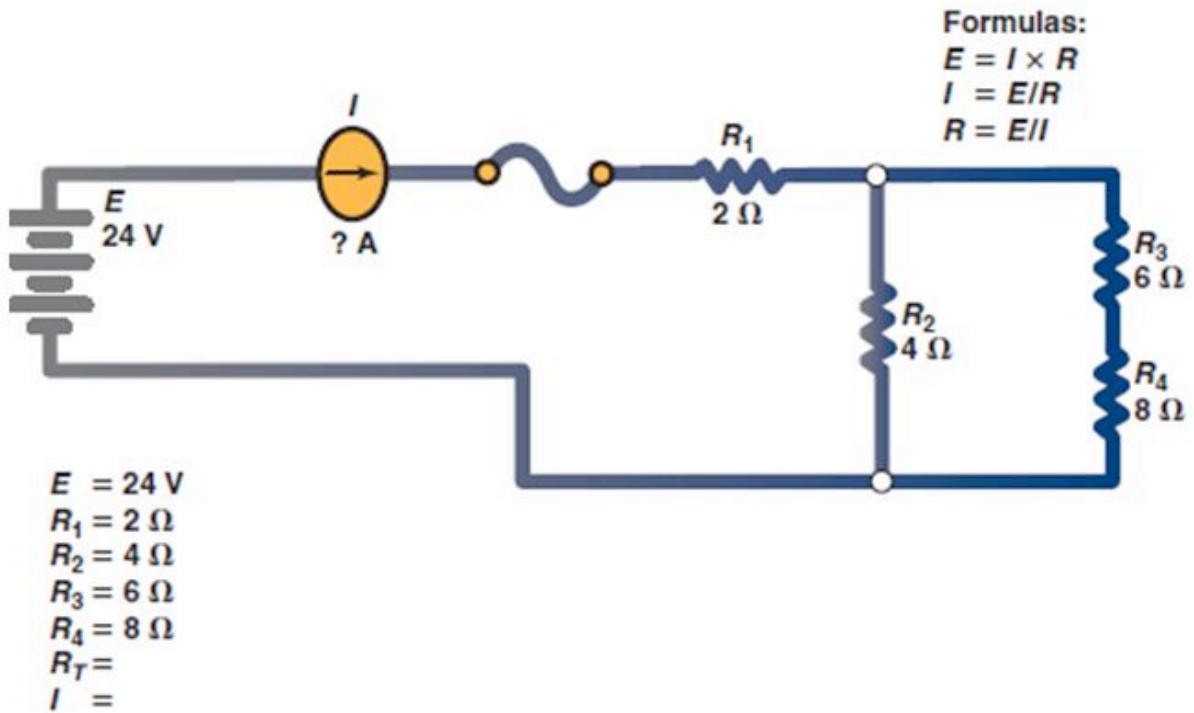
- A) 16.3 volts; 12 ohms
 - B) 3.3 volts; 2.4 ohms
 - C) 1.36 volts; 1 ohm
 - D) 6 volts; 4.4 ohms
- 3) A series-parallel circuit is also called a _____. 3) _____
- A) Combination circuit
 - B) Parallel circuit
 - C) Controller circuit
 - D) Parallel-series circuit

4) Calculate the total resistance (R_T) for the circuit in the figure below and determine the value of R_1 . 4) _____



- A) 1 Ω
- B) 4 Ω
- C) 8 Ω
- D) 10 Ω

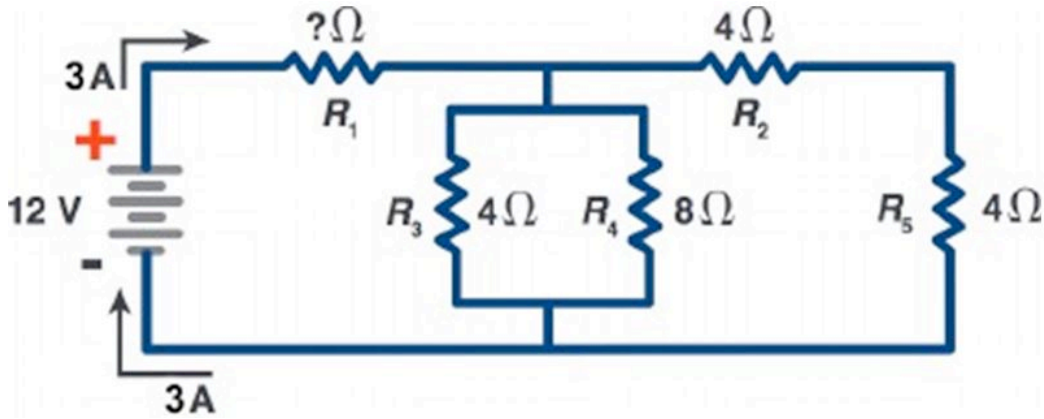
5) See Figure 8-12 to solve for total resistance (R_T) and total current (I). 5) _____



- A) 3.1 ohms; 7.7 amperes
- B) 5.1 ohms; 4.7 amperes
- C) 20 ohms; 1.2 amperes
- D) 6 ohms; 4 amperes

6) Determine the unknown resistor value in the figure below and determine the value of R_1 .

6) _____



- A) 1Ω
- B) 2Ω
- C) 3Ω
- D) 4Ω

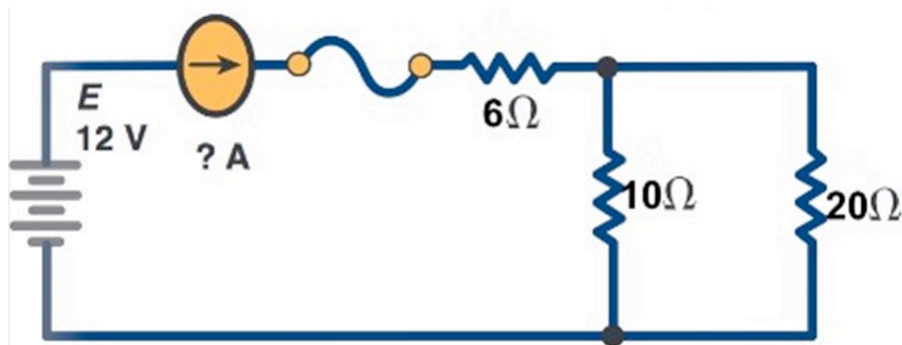
7) All brake lights are dimmer than normal. Technician A says that bad bulbs could be the cause. Technician B says that high resistance in the brake switch could be the cause. Which technician is correct?

7) _____

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

8) Calculate the current flow in this circuit. (Round off to 2 decimal points.)

8) _____



- A) About 0.95 amps
- B) About 0.33 amps
- C) About 3 amps
- D) About 1.05 amps

9) Which of these is a circuit that allows only one path for current to flow?

9) _____

- A) Series
- B) Parallel-series
- C) Series-parallel
- D) Integrated

10) See **Figure 8-8** to solve for total resistance (R_T) and total current (I).

10) _____



$E = 12 \text{ V}$
 $R_1 = 2 \Omega$
 $R_2 = 4 \Omega$
 $R_3 = 4 \Omega$
 $R_T = 4 \Omega$
 $I =$

- A) 10 ohms, 1.2 A
- B) 4 ohms, 3 A
- C) 6 ohms, 2 A
- D) 2 ohms, 6 A

Answer Key

Testname: AEE6_8B

1) D

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2) D

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3) A

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4) D

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5) B

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6) B

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7) B

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8) A

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9) A

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10) B

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