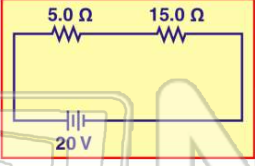




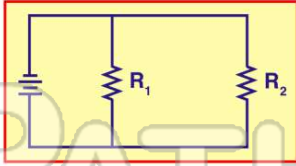
Name _____ Class _____ Date _____

1 The diagram below shows two resistors connected in series to a 20-volt battery. If the current through the 5.0-ohm resistor is 1.0 ampere, the current through the 15.0-ohm resistor is



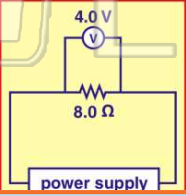
A 1.0 A
B 0.33 A
C 3.0 A
D 1.3 A

2 Resistors R_1 and R_2 have an equivalent resistance of 6 ohms when connected in the circuit shown below. The resistance of R_1 could be




A 1 Ω
B 5 Ω
C 8 Ω
D 4 Ω

3 The diagram below represents an electric circuit. The total amount of energy delivered to the resistor in 10. seconds is



A 3.2 J
B 5.0 J
C 3.2 J
D 5.0 J

4 A copper wire is part of a complete circuit through which current flows. Which graph best represents the relationship between the wire's length and its resistance?



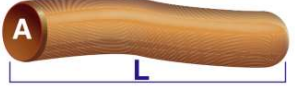

PREVIEW

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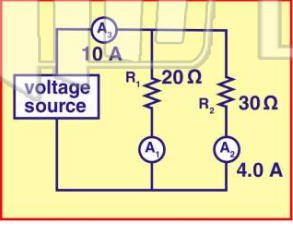
7

B 2.0 Ω
C 10 Ω
D 45 Ω

A L/A
B $L \times A$
C A/L
D $L + A$

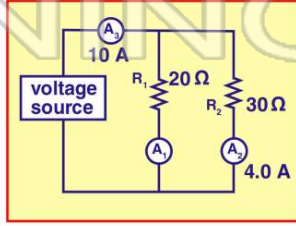


9 Based on the diagram below, what is the potential difference across the source?



A 440 V
B 220 V
C 120 V
D 60 V

10 Based on the diagram below, what is the current reading of ammeter A_1 ?



A 10.0 A
B 6.0 A
C 3.0 A
D 4.0 A

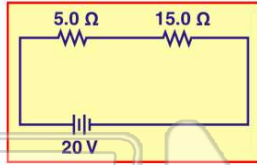


ANSWER KEY

The diagram below shows two resistors connected in series to a **20-volt battery**.

If the current through the **5.0-ohm resistor** is **1.0 ampere**, the **current** through the **15.0-ohm resistor** is

- A 1.0 A
- B 0.33 A
- C 3.0 A
- D 1.3 A

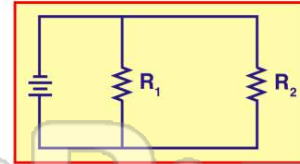


(a)

Resistors R_1 and R_2 have an **equivalent resistance of 6 ohms** when connected in the circuit shown below.

The **resistance of R_1** could be

- A 1 Ω
- B 5 Ω
- C 8 Ω
- D 4 Ω

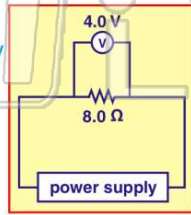


(c)

The diagram below represents an electric circuit.

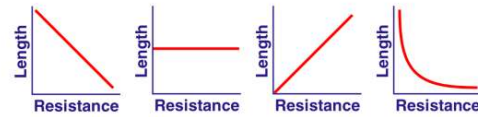
The **total amount of energy delivered to the resistor in 10. seconds** is

- A 3.2 J
- B 5.0 J
- C 20 J
- D



(c)

A copper wire is part of a **complete circuit** through which current flows. Which graph best represents the relationship between the wire's **length** and its **resistance**?



(b)



PREVIEW

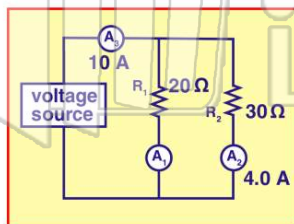
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- C 10 Ω
- D 45 Ω

- B $L \times A$
- C A/L
- D $L + A$

Based on the diagram below, what is the **potential difference** across the source?

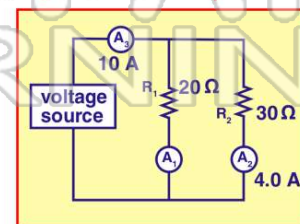
- A 440 V
- B 220 V
- C 120 V
- D 60 V



(c)

Based on the diagram below, what is the **current reading of ammeter A_1** ?

- A 10.0 A
- B 6.0 A
- C 3.0 A
- D 4.0 A



(b)