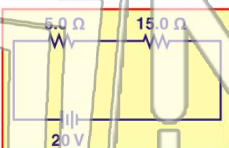Name_____ Class_____ Date_____

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

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**?
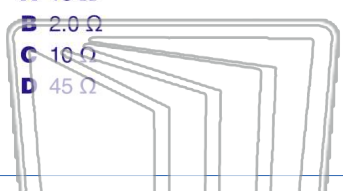
5

7

resistance is

A 15 Ω
B 2.0 Ω
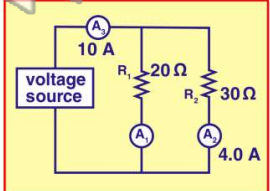C 10 Ω
D 45 Ω

resistance of the wire is **directly proportional** to

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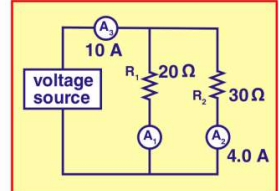B $L \times A$
C A/L
D $L + A$

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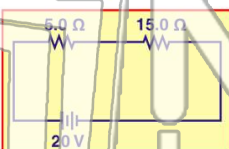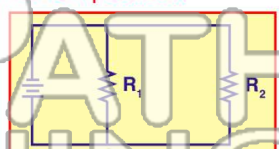
A 10.0 A
B 6.0 A
C 3.0 A
D 4.0 A

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

(A)

5.0 Ω   15.0 Ω

20 V

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

(C)

R_1 R_2

3 The diagram below represents an electric circuit.

The **total** amount of energy delivered to the resistor

4.0 V
(V)

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**?
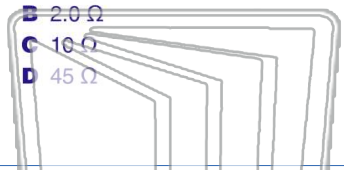
(B)

5

(C)

PREVIEW

Please Sign In or Sign Up to download the printable version of this worksheet
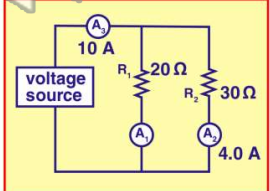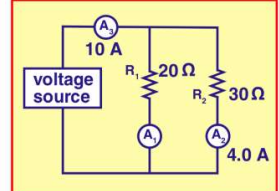
7

resistance is

A 15 Ω
B 2.0 Ω
C 10 Ω
D 45 Ω

(C)

resistance of the wire is **directly proportional** to

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

(A)

A

L

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

(C)

A_3
10 A
voltage source
R_1 20 Ω
R_2 30 Ω
A_1
A_2
4.0 A

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

(B)

A_3
10 A
voltage source
R_1 20 Ω
R_2 30 Ω
A_1
A_2
4.0 A