Electricity and Electrical Energy - Set II

Name_____ Class_____ Date_____

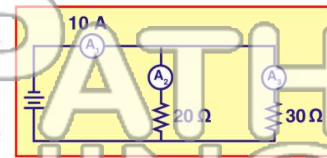**1** A balloon is rubbed against a student's hair and then touched to a wall. The balloon "**sticks**" to the wall due to

A electrostatic forces between the particles of the balloon
B magnetic forces between the particles of the wall
C electrostatic forces between the particles of the balloon and the particles of the wall
D magnetic forces between the particles of the balloon and the particles of the wall

2 In the circuit diagram shown below, ammeter A_1 reads **10 amperes**.

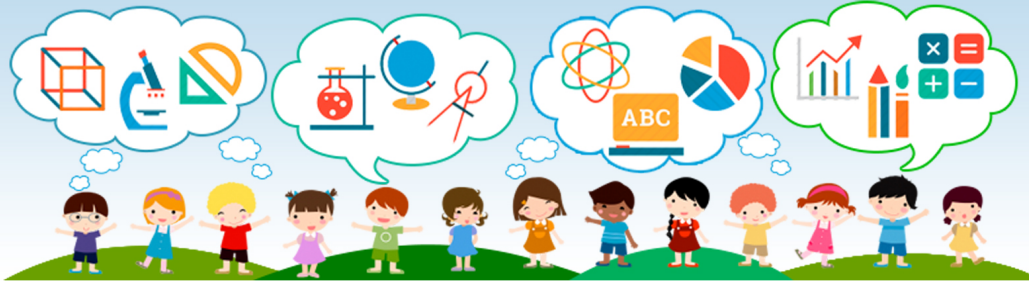**What is the reading of ammeter A_2?**

A 6.0 A
B 10 A
C 20 A
D 4.0 A

3 The **resistance** of a 60-watt light bulb operated at 120 volts is approximately

4 An immersion heater has a resistance of 5.0 ohms while drawing a current of 3.0 amperes. How much **electrical energy** is delivered to the heater during **200 seconds**
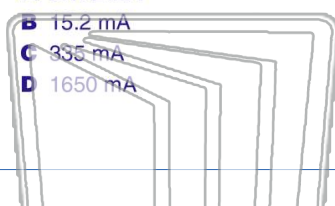
5

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

7 the resistor is

A 0.152 mA
B 15.2 mA
C 335 mA
D 1650 mA

and equal cross-sectional areas of 2.5×10^{-6} meter^2 are at 20°C. Which wire has the **greatest** electrical resistance?

A aluminum
B copper
C gold
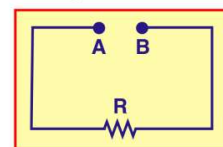D nichrome

9 How much **electrical energy** is required to move a 4.00-microcoulomb charge through a **potential difference** of 36.0 volts?

A 9.00×10^6 J
B 144 J
C 1.44×10^{-4} J
D 1.11×10^{-7} J

10 What must be inserted between points **A** and **B** to establish a **steady** electric current in the incomplete circuit represented in the diagram below?

A switch
B voltmeter
C magnetic field source
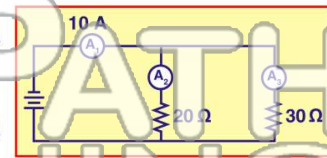D source of potential difference

Name_____ Class_____ Date_____

1 A balloon is rubbed against a student's hair and then touched to a wall. The balloon "**sticks**" to the wall due to

A electrostatic forces between the particles of the balloon

B magnetic forces between the particles of the wall

C electrostatic forces between the particles of the balloon and the particles of the wall

D magnetic forces between the particles of the balloon and the particles of the wall

C

2 In the circuit diagram shown below, ammeter A_1 reads **10 amperes**.

What is the reading of ammeter A_2?

A 6.0 A
B 10 A
C 20 A
D 4.0 A

A

3 The **resistance** of a 60-watt light bulb operated at 120 volts is approximately

A 720 Ω

4 An immersion heater has a resistance of 5.0 ohms while drawing a current of 3.0 amperes. How much **electrical energy** is delivered to the heater during **200 seconds**
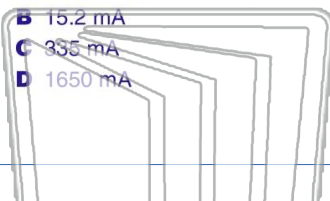
C

5

C

7
the resistor is

A 0.152 mA
B 15.2 mA
C 335 mA
D 1650 mA

B

and equal cross-sectional areas of 2.5×10^{-6} meter² are at 20°C. Which wire has the **greatest** electrical resistance?

A aluminum
B copper
C gold
D nichrome

D

9 How much **electrical energy** is required to move a 4.00-microcoulomb charge through a **potential difference** of 36.0 volts?

A 9.00×10^6 J
B 144 J
C 1.44×10^{-4} J
D 1.11×10^{-7} J

C

10 What must be inserted between points **A** and **B** to establish a **steady** electric current in the incomplete circuit represented in the diagram below?

A switch
B voltmeter
C magnetic field source
D source of potential difference

D