Jules' Workshop

Standard

Unit 2 - QUESTIONS

The symbol for Current is 'I' because, it denotes the 'intensity' electron flow and is measured in amperes.

The symbol for Voltage is 'E for Electromotive Force (EMF) or 'V' for voltage and measured in volts.

The symbol for Resistance is 'R' and is measured in Ohms.

Power is measured in Watts.

Complete the tables below.

Voltage (E)	Current (I)	Resistance (R)	Power (W)
12 V			15 W
12 V			10 W
	500 mA	20 Ω	
	6 µA	400 Ω	
600 V		1.25 KΩ	
90 V			100 W
5 V			125 W
6 V	50 mA		
	3 A	3 KΩ	
1 V		1 Ω	
12 V	1.24 A		
12 V		600 Ω	
3 mV	6 µA		
10 MV		20 MΩ	
24 V			27 W
12 V	0.75 A		
	0.4 mA	110 Ω	
		10.75 Ω	60 W
12 kV		25 Ω	
2 V	75 mA		
	3 A	1 MΩ	

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1. What happens to the power level When the voltage, across a fixed load, doubles>

   A. the power value decreased by 2.

   B. the lights go out.

   C. the power value increased by 2.

   D. It is imposible to calculate.

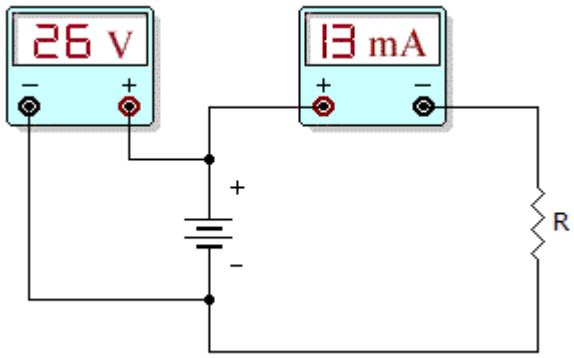
2. You accidently replace a 15 W bulb With a 5 W bulb in your car. The voltage remains at 12V. What Was the current drain originally and after you replaced the bulb?

   A. The current increases by a factor of three.

   B. The current decreases by a factor of three.

   C. Current stays the same.

   D. The bulb Will destruct



3. What is the power level dissipated in R?

IMPORTANT: Observe the difference in measuring voltage and current. Voltage is measured across the terminals, but current is measured in the circuit.

   A. 338 W

   B. 10 W

   C. 0.338 W

   D. 3.38 W

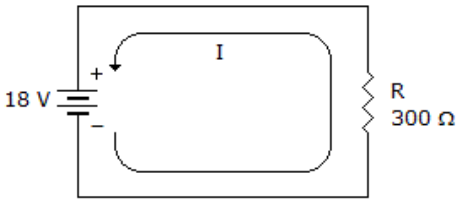
4. . What power is dissipated by R?

   A. 10 W

   B. 1 W

   C. 1 mW

   D. 10 mW



5.. There is 6 μA of current is flowing in the circuit. What is the voltage supply a power in the circuit?

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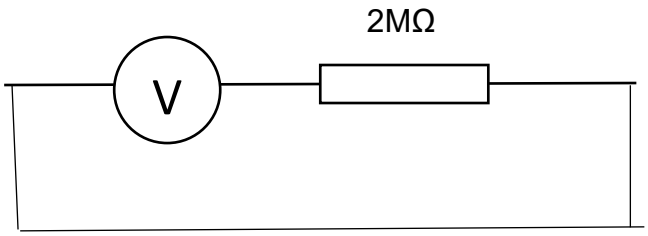


A. 12 V and 72 mW
B. 120 V and 72 mW
C. 12 V and 72 µW
D. 120 V and 7.2 W

6. The resistence in a circuit doubles What must happen to the voltage to keep the power dissipation constant?

7. What is a kiloWatt hour?

8. If the energy of 120 joules is applied and this moves 6 coulombs, What is the required voltage?

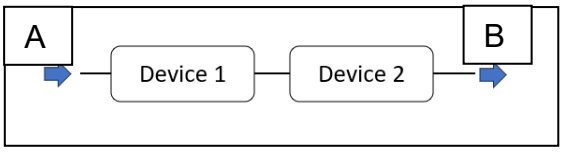
A. 2 V

B. 20 V

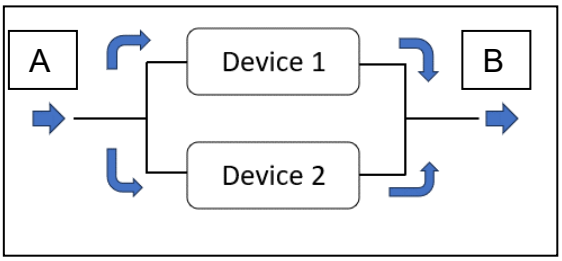
C. 0.2 V

D 200 V

9. If device 1 and 2 are 10 V batteries, what is the potential difference between A and B?



10. If device 1 and 2 are 10 V batteries, What is the potential difference between A and B?



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