

**Science & Technology 404**  
**POWER**

1. What will be the current flowing through a 200 W light bulb when it is connected to a 120 V line?
2. A 4 W radio has a current of 0,5 A flowing through it. What is the voltage drop across the radio?
3. What power is used by a stereo if 4 A flow through it when connected to a 120 V line ?
4. There are 2 A of current in a circuit that has one 1.5 V battery. What is the electric power consumed by the circuit?
5. The electric power consumed by a circuit with one light bulb is 3 W. The voltage of the battery is 3 V. What is the current in the circuit?
6. The electric power consumed by a circuit with one light bulb is 6 W. The current in the circuit is 4 A. What is the voltage of the circuit?
7. Calculate the power rating of an i-Pod drawing 3.5 A from a 6.0 V battery.
8. A microwave oven operating on a 110 V circuit draws 15 A. What is its power rating?
9. What is the current passing through a 12 V circuit on a 9.6 W appliance?

10. Fill in the missing information.

Current (A)	Voltage (V)	Power (W)
2.5	110	
	3.0	11
2.5	9.0	
25		1200
4.5		22
	220	2500

11. Your alarm clock is connected to a 120 volt circuit and draws 0.5 A of current.  
A) What is the power of the clock in watts?  
B) What is the power of the clock in kilowatts?
12. Calculate the power of a motor that draws a current of 2 A when connected to a 12 volt battery.
13. Calculate the power rating of a home appliance (in kilowatts) that uses 8 amps of current when plugged into a 120-volt outlet.
14. Using the formula for power, calculate the amount of current through a 75-watt light bulb that is connected to a 120-volt circuit in your home.
15. A toaster is plugged into a 120-volt household circuit. It draws 5 amps of current.  
a. What is the resistance of the toaster?  
  
b. What is the power of the toaster in watts?  
  
c. What is the power in kilowatts?