

Student Activity Sheet 1-5

Applying Ohm's Law, Electrical Terms, And Symbols Using Word Problems

Name _____ Score _____
Date _____

In electrical work and experimentation, the technician must communicate effectively with other technicians. By successfully comprehending the following problems and solving for the unknown values, you will be able to improve your communication skills and raise your technical reading level. When needed, you can round off your answers to an accuracy of three significant digits.

1. A meter should indicate _____ volts when connected across a 100 Ω resistor that has 6 amps of current passing through it. 1. _____
2. A toaster with a 20-ohm heater element would produce a current of _____ A when connected to a 120-volt circuit. 2. _____
3. A 12-volt indicator lamp would have a resistance value of _____ Ohms to produce a current of 0.5 amps. 3. _____
4. A voltage of _____ V is needed to produce a 1.5 ampere current Reading when connected to a 20-ohm resistance. 4. _____
5. _____ amperes will be present when a 22-ohm resistor is connected To a 6-volt source. 5. _____
6. _____ volts are required to produce 0.005 amps of current through a 100-ohm resistor. 6. _____
7. A(n) _____ Ω resistor will produce a current equal to 0.025 amps when connected to a 12-volt source. 7. _____
8. A 6-volt source connected to a 1200-ohm resistor will cause a(n) _____ amp current. 8. _____
9. A potential equal to _____ V is needed to provide 0.010 amps of Current through a 100-ohm resistor. 9. _____
10. A(n) _____ amp current will be produced when a 220-ohm resistor is connected to a 6-volt source. 10. _____