Chapter 7 worksheet Electricity Answer the following problems on a separate sheet of paper.

- $1. Describe \ how \ you \ could \ quickly \ determine \ whether \ a \ string \ of \ lights \ is$ wired in series or in parallel.
- 2. Why does a spark jump from your hand to the doorknob as you reach for the door after walking across a carpeted floor?

Problems: Be Sure to SHOW ALL WORK FOR PROBLEMS!

- 21. A light bulb with a resistance of 160 Ω is plugged into a 120 V outlet. What is the current flowing through the bulb?
- 22. Find the current flowing through a 20 Ω wire connected to a 12 Vbattery.
- 23. What is the current flowing through a 20Ω wire connected to a 6 V battery?
- 24. The current flowing through a lamp is 1.5 A. It is plugged into a 120

