

Name: _____

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Chapter 12.2 Homework

Conceptual Physics

Parent Signature: _____

Each numbered question is worth one point unless otherwise noted.

Reviewing Concepts

8. The direction of electric current in a circuit is away from the _____ end of the battery and toward the _____ end.

9. How are voltage and energy related?

10. A voltage of 1 volt means 1 _____ of _____ does 1 _____ of work in 1 second.

11. Explain how a battery in a circuit is similar to a water pump.

12. What are the differences between a multimeter, a voltmeter, and an ammeter?

13. Suppose you have a closed circuit containing a battery and a bulb. Why must you first create a break in the circuit before using an ammeter to measure the current?

Solving Problems

2. What voltage would the electrical meter show in each of the diagrams at bottom of page 311?

a.

b.

3. Which of the diagrams at top of page 311 shows the correct way to measure current in a circuit?

4. A portable radio that runs on 1.5-V batteries needs 6 V to work properly. How many batteries does it use?