

Chapter 8 HW

Review Questions: 9, 10, 16, 20

Exercises: 1, 2, 4, 5, 8, 23, 30, 32, 34, 36, 43, 45

Problems: 10, 12

Additional:

A. High voltage by itself does not produce an electric shock. What does?

B. Is a current-carrying wire normally charged?

C. A household circuit breaker will open a switch when the current exceeds 20 amps.

A 1-kilowatt air conditioner, a 250-Watt television, and two 40-Watt light bulbs are operated at the same time. Assume that 110 volts is supplied to the system.

- a) Calculate the total current drawn while all appliances are being operated. Does this value exceed a 20-amp limit?
- b) How much would it cost to operate all of these appliances for 3 hours if the public utility rate is 22 cents per kWh?