

CHECK YOUR Understanding

- Electrical energy is transmitted through high voltage transmission lines. What is the advantage of using high voltage?
- A small business uses 498 kW•h of electrical energy. How many joules of energy is this?
- A clothes washer has a power rating of 350 W. A dryer has a rating of 4600 W.
 - What is the power rating of the washer in kilowatts?
 - If the washer runs for 30 min, how many kilowatt•hours of electrical energy has been used?
 - What is the power rating of the dryer in kilowatts?
 - If the dryer runs for 60 min, how many kilowatt•hours of energy will it use?
 - How much electrical energy do the washer and dryer use together?
 - If energy costs \$0.062/kW•h, what is the cost to do a load of laundry?
- What is the reading of the electric meter shown in Figure 8?

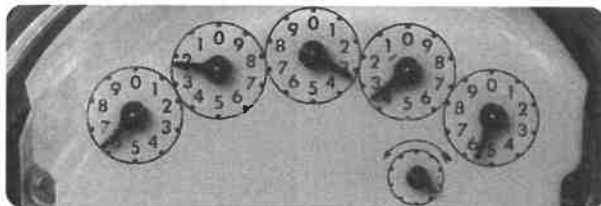


Figure 8

- In an average week, a student uses a 1200 W hair dryer for 30 min. If electrical power costs \$0.065/kW•h, what is the cost to use the hair dryer for a year?
- What is the reading shown by the kilowatt•hour meter dials shown in Figure 9?



kilowatt•hour meter reading

Figure 9

- The electric meter readings for a home are shown in Figure 10. Determine how much electrical energy was used during the month of March.

April 1 kilowatt•hour meter reading



March 1 kilowatt•hour meter reading



Figure 10

- A family uses 988 kW•h of electricity in one month. If electricity costs \$0.063/kW•h, what is the family's electricity bill for the month?
- What information does the EnerGuide label provide? Determine the EnerGuide number for an appliance that you have at home or you have seen in a store. Explain what the number means.
- An appliance has an EnerGuide rating of 630 kW•h/year. What is the cost per week to run the appliance if electricity costs \$0.068/kW•h?
- The monthly electricity bill for an apartment is \$80.71. If the electricity rate is \$0.072 kW•h, how many joules of energy are used?
- The Smith household has their highest electricity bill in December. The Jones household has their highest electricity bill in August. Provide possible reasons for this difference.