

11-3

Real-Life Career Activity

Electrician

The electric company charges you for the amount of electricity that you use. It is measured in units called **kilowatt hours**. If you know the price per kilowatt hour, then you can make a **function table**. The input will be the amount of electricity used per hour, and the output will be the cost per hour. If the electric company charges 9 cents per kilowatt hour (kWh), the function table is as follows:

Function Rule: $f(x) = 0.09x$

Input (x) (kWh)	Output ($0.09x$) (\$ per hour)
Clothes Dryer 4.00	\$0.36
Clothes Washer 0.25	
Stereo 0.10	
Color Television 0.23	
Microwave Oven 1.50	
Water Heater 16.00	
Vacuum Cleaner 0.75	
Water Bed 3.80	
Refrigerator 5.50	

1. Compute the output for the function table above.

Select the three most expensive appliances and make a function table to show the cost of running each for different lengths of time.

The input will be: h = hours appliance is used.

The output will be: $f(h) = \text{cost per hour} \times h$. (The cost per hour comes from the table above.)

Use input values of 1, 2, 3, 4, 8, and 168 hours (1 full week).

Write the name of each appliance after the exercise number.

2. Water Heater

3.

4.

$f(h) = \$1.44 \times h$

h	total cost
1	\$1.44
2	
3	
4	
8	
168	

$f(h) = \quad \times h$

h	total cost
1	
2	
3	
4	
8	
168	

$f(h) = \quad \times h$

h	total cost
1	
2	
3	
4	
8	
168	

5. Choose an appliance and graph the cost of running it for 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 hours. Use a separate sheet of paper.