

## Section 8.4

### READING AND SELF-DISCOVERY QUESTIONS

### 8.4

1. Fill in the following table, providing a description for each step of the Mathematics Blueprint for Problem Solving.

Step	Description <i>(What do you do in this step?)</i>
Gather the Facts	<b>Read the material, looking for and underlining important facts.</b>
What Am I Asked to Do?	<b>Carefully read the instructions in the problem.</b>
How Do I Proceed?	<b>What is my plan for completing the task?</b>
Key Points to Remember	<b>Scan the material looking for important ideas.</b>

### DEMONSTRATE YOUR UNDERSTANDING

### 8.4

1. Research the cost of a local cab company to find the mileage cost and cost for pick-up. Write an equation to find the cost of riding in the cab from the NMC campus to the Lawrence campus. The distance between the two buildings that will be your pick-up and drop-off points is 10.83 miles. Assume that there will only be one passenger for the trip.

**Information (Example):**

Yellow Cab charges a \$3 pick up fee. The City of Indianapolis sets our meter rates, which are \$0.40 per  $\frac{1}{5}$  mile (or part thereof).

**Equation:**  $\text{Cost} = \$3.00 + \frac{10.83 \text{ miles}}{\frac{1}{5}} \cdot (\$0.40) + \frac{1}{5} \cdot (\$0.40)$

2. Your monthly electric bill is based on a flat rate of \$12.65 plus \$.03/kilowatt-hour. Your monthly bill is \$22.00. How many kilowatt-hours did you use during the month?

$$12.65 + 0.03 \cdot x = 22.00$$

$$0.03 \cdot x = 22.00 - 12.65$$

$$0.03 \cdot x = 9.35$$

$$x = \frac{9.35}{0.03}$$

$$x = 311\frac{2}{3} \text{ } kWh$$

## IDENTIFY AND CORRECT THE ERRORS

## 8.4

In the second column, identify the error(s) you find in the following worked solution and describe the error made. Solve the problem correctly in the third column.

Problem	Describe Error	Correct Process
A store was selling candy bars for twenty-five cents each. Represent the cost of a single candy bar as a decimal number.	25 cents is $\frac{25}{100}$ of a <b>dollar</b> , not a <b>cent</b> .	<b>\$0.25</b>
<b>Worked Solution</b> (What is wrong here?)		
.25¢		