

## Lesson 3-3

## Problem

**BUSINESS** A home improvement store charges a \$10.00 deposit plus \$3.50 per hour to rent a table saw.

- Make a mathematical model of the billing system.
- Write an algebraic model of the billing system.
- Write a rule for the billing system.

## Solve the Problem

- Make a table to represent a mathematical model of this situation. Numbers are used to represent the billing system.

<b>Number of hours</b>	0	1	2	3	4	5
<b>Total Cost</b>	\$10.00	\$13.50	\$17.00	\$20.50	\$24.00	\$27.50

- To write an algebraic model, choose a variable to represent an element of the situation. Let  $h$  represent the number of hours that the table saw is rented. The algebraic model of the billing system is  $10 + 3.5h$ .
- To write a rule, choose another variable to represent the entire situation. Let  $c$  represent the total cost of renting the table saw for  $h$  hours. The rule for the billing system is  $c = 10 + 3.5h$ .