

**ACTIVITY 16****TELEVISION**

1. Tonya purchased a television with a deposit of \$100. She agreed to make monthly payments of \$75. Write an equation in the form  $y = mx + b$  to describe the situation. Let  $x$  be the number of months since the purchase. Let  $y$  be the total amount that Tonya has paid for the sofa.

$$y = 75x + 100$$

2. Complete the table of values for the equation.

<b>x</b> months since purchase	<b>y</b> dollars paid
0	100
1	175
2	250
3	325
4	400
5	475
6	550
7	625
8	700

3. Label the first quadrant graph on the following page. Make each unit on the  $x$ -axis worth 1 (month) and each unit on the  $y$ -axis worth 50 (dollars).
4. Label the axes with descriptive titles.
5. Plot the points from your table on the graph.
6. Draw the line that represents the graph of the equation.
7. The price of the television is \$550. Draw the line  $y = 550$  on your graph to represent the price of the television. Label this line.
8. When will Tonya have paid off the television? Determine this from your graph and provide your answer below.

**6 months from purchase**

9. When will Tonya have paid off the television? Determine this by replacing the  $y$  in your equation with 550. Solve the equation and provide the answer below.

$$550 = 75x + 100$$

$$x = 6$$

Graph for Television Activity

