

Lesson 2.3 ~ Recursive Routine Applications

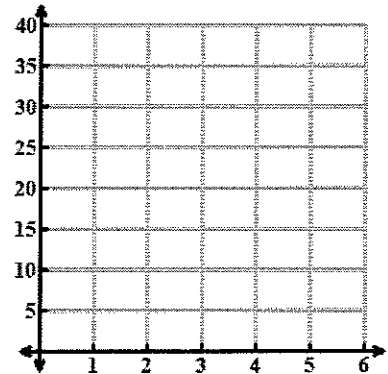
Name _____ Period _____ Date _____

1. Shasta owns 10 baseball cards. Each week she plans to add 6 cards to her collection.
- Write a recursive routine (start value and operation) that describes the total number of baseball cards Shasta will own based on the number of weeks she has been collecting cards.

- Create an input-output table that shows the number of cards in her collection over the first five weeks.

<i>Weeks</i>	<i>Cards</i>
x	y
0	
1	
2	
3	
4	
5	

- Create a scatter plot that shows the number of cards in Shasta's collection over the first five weeks. Label both axes.



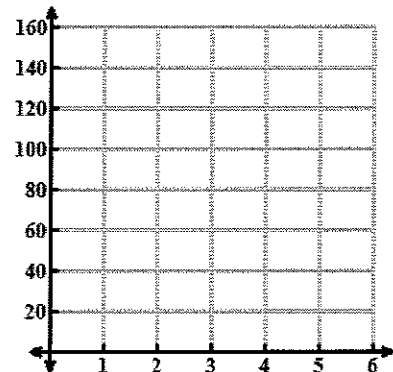
- Determine how many weeks it will take before Shasta has 76 cards in her collection.

2. Before Henry went on a diet, he weighed 160 pounds. Each month he diets, he loses 5 pounds.
- Write a recursive routine that describes Henry's weight based on the number of months he has been dieting.

- Create an input-output table that shows Henry's weight over the first five months.

<i>Months</i>	<i>Weight</i>
x	y
0	
1	
2	
3	
4	
5	

- Create a scatter plot that shows Henry's weight over the first five months. Label both axes.



- Henry's doctor told him a good weight for his age is 120 pounds. How many months will it take him to reach this weight?