

Name _____

3-1B Lesson Master

Questions on SPUR Objectives
See pages 178–179 for objectives.

REPRESENTATIONS Objective E

Suppose you ride your bike to your friend’s house that is 2 miles away. From there you and your friend bike at a rate of 5 miles per hour. Let x equal the number of hours you ride your bike after getting to your friend’s house and y equal the total number of miles you ride after x hours. This situation can be modeled as $y = 5x + 2$.

1. Complete the table at the right.

x	y
0	
1	
2	
3	
4	

2. After how many hours will you have traveled 12 miles? _____

3. How many miles have you traveled in 4 hours? _____

4. What do the coordinates $(0, 2)$ represent? _____

A pool that holds 1,410 gallons of water is emptied for the winter. It empties at a rate of 6 gallons per minute. Let x equal the number of minutes and y equal the amount of water left after x minutes. The situation can be modeled as $y = 1,410 - 6x$.

5. Complete the table at the right.

x	y
0	
30	
60	
90	
120	

6. After how many minutes will the pool be about half full? _____

7. How long will it take to empty the pool? _____

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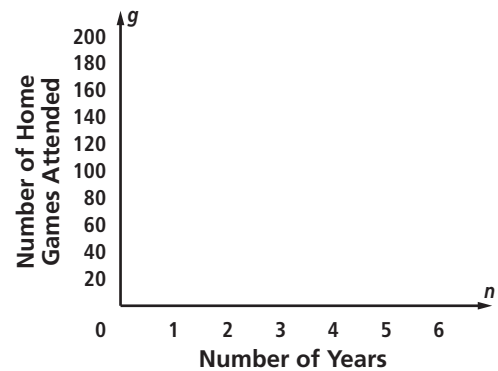
8. What do the coordinates (235, 0) represent? _____
9. Write the domain of x using set builder notation. _____

Abigail loves basketball. She has already attended 100 Chicago Bulls home games. She plans on attending 8 home games a year. Let n equal the number of years and g equal the number of games she attends after n years.

10. Write an equation that represents g in terms of n . _____
11. Complete the table.

n	g
0	
1	
2	
3	
4	

12. Graph the ordered pairs (n, g) .

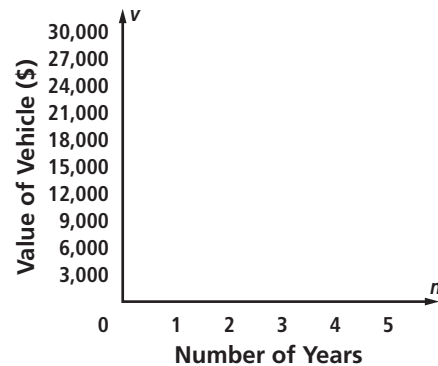


13. If Abigail is 16 years old now, how many home games will she have seen by the time she is 21? _____

Miguel's family purchased a mid-size sport utility vehicle for \$28,165 four years ago. Its value has depreciated an average of \$4,900 each year. Let n equal the number of years and v equal the value of the vehicle after n years. We can model this relationship with $v = 28,165 - 4,900n$.

14. Complete the table below.
15. Graph the ordered pairs (n, v) .

n	v
0	
1	
2	
3	
4	
5	



16. What is the current value of the vehicle? _____
17. Write the domain of n using set builder notation. _____