

Vocabulary Check

1. Define *sequence*. Give an example of an arithmetic and a geometric sequence.

(Lesson 2)

A sequence is a list of numbers in a specific order; Sample answer: 2, 4, 6, 8... is an arithmetic sequence and 2, 4, 8, 16... is a geometric sequence.

2. Fill in the blank in the sentence below with the correct term. (Lesson 1)


A **function** is a relation that assigns exactly one output value to one input value.

Skills Check and Problem Solving

Complete each function table. (Lesson 1)

3.

Input (x)	$2x + 6$	Output
0	$2(0) + 6$	6
1	$2(1) + 6$	8
2	$2(2) + 6$	10



4.

Input (x)	$3x + 1$	Output
0	$3(0) + 1$	1
1	$3(1) + 1$	4
2	$3(2) + 1$	7

 **Identify Structure** Find the rule for each function table. (Lesson 2)

5.

Input (x)	Output
3	6
4	8
5	10

$2x$

6.

Input (x)	Output
1	3
2	7
3	11

$4x - 1$


7.

Input (x)	Output
2	8
3	11
4	14

$3x + 2$

8. Arnold reads an average of 21 pages each day. Write an equation to represent the number of pages read after any number of days. (Lesson 4)

$$p = 21d$$

9.  **Reason Abstractly** The table shows the cost of renting an inner tube to use at the Wave-a-Rama Water Park. Explain how to write an equation to represent the data in the table. Then give the equation for the data. (Lesson 3)

Sample answer: First find the difference in the output values (cost). Each value increases by 5.50, so the equation includes $5.5x$. Since each output is exactly 5.5 times the input value, the equation is $y = 5.5x$.

Input (x)	Cost (y)
2	\$11.00
3	\$16.50
4	\$22.00