



Name _____ Date _____

Functions (pages 496–499)

When you say “ y is a **function** of x ,” this means that the value of y depends on the value of x . If you know the input value for x , you can find the output value for y if you know the function rule. A **function table** shows you the input (x) and output (y) values for a certain function rule.

Making Function Tables and Finding Function Rules

- To find the output values for a function table, substitute the input values for the variable in the function rule.
- To find the function rule when you have the function table, study the relationship between each input and output.

EXAMPLES

A Complete the function table.

input (n)	output ($n + 2$)
-1	
0	
2	

$-1 + 2 = 1$
 $0 + 2 = 2$
 $2 + 2 = 4$

B Find the rule for the function table.

input (n)	output (?)
1	2
2	5
3	8

Notice that the output is 1 less than three times n .
The rule is $3n - 1$.

Try These Together

- If the input values are 3, 5, and 6, and the corresponding output values are 7, 11, and 13, what is the function rule?
HINT: Notice that 7 is 1 more than twice 3.
- If the function rule is $5n + 2$, what is the output for an input of 0?
HINT: Substitute 0 for n in the rule and simplify.

PRACTICE

Complete each function table.

3.

input (n)	output ($n - 2$)
2	
4	
8	

4.

input (n)	output ($n + 3$)
1	
3	
5	

- What is the output for an input of 7 if the function rule is $4n$?
- If the output is 4 and the function rule is $n + 3$, what is the input?



7. **Standardized Test Practice** If the function rule is $3n - 4$, what is the output for an input of 3?

- A** 12 **B** 9 **C** 4 **D** 5

Answers: 1. $2n + 1$ 2. 2 3. 0, 2, 6 4. 4, 6, 8 5. 28 6. 1 7. D