

# Lesson 7-3

## Functions

<p><b>Lesson Objective</b></p> <p>To make a function table and to write an equation</p>	<p><b>Common Core Standard</b></p> <p>Expressions and Equations: 6.EE.9</p>
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### Vocabulary / Key Concepts / Example

A  is a rule that assigns exactly one output value to each input value.

The input value is also called the \_\_\_\_\_.

In a table, it is the \_\_\_\_\_ column.

The output value is called the \_\_\_\_\_ because it \_\_\_\_\_.

In a table it is the \_\_\_\_\_ column.

### Example

- 1** **Completing a Function Table** Complete the function table if the rule is  $\text{Output} = \text{Input} \div (-3)$ .

Input	Output
-9	3
-3	1
12	
15	

← Divide -9 by . Place 3 in the Output column.

← Divide -3 by . Place 1 in the Output column.

← Divide 12 by . Place  in the Output column.

← Divide 15 by . Place  in the Output column.

### Quick Check

1. Complete the function table for each rule.

a.  $\text{Output} = \text{Input} \div 4$

Input	Output
16	
-24	
36	

b.  $\text{Output} = \text{Input} - 8$

Input	Output
-6	
-1	
4	

### Example

- 2** **Identifying Independent and Dependent Variables** Identify the independent and dependent variable.

*the height of a child and the age of a girl*

Does the height of a girl depend on her age? \_\_\_\_\_

Does the age of a girl depend on her height? \_\_\_\_\_

Think: Which makes more sense?

As the girl gets taller, her age changes.

OR

As the girl gets older, her height changes.

As a girl gets \_\_\_\_\_, her \_\_\_\_\_ changes.

Because \_\_\_\_\_ depends on \_\_\_\_\_, height is the \_\_\_\_\_ variable and age is the \_\_\_\_\_ variable.

**Quick Check**

2. Identify the independent variable and dependent variable.  
*the time spent studying and the test score*

\_\_\_\_\_

\_\_\_\_\_

**Example**

3. **Writing Equations for Functions** The 6<sup>th</sup> grade class is selling posters as a fundraiser. They record their daily sales and income in a table.

Posters	Income
15	120
24	192
41	328
68	544

Write an equation for the amount of income the class gets from its sale of posters.

The income *depends on* \_\_\_\_\_.

The income is \_\_\_\_\_ times the number of posters sold.

income = 8 · \_\_\_\_\_

y = \_\_\_\_\_

**Quick Check**

3. The 8<sup>th</sup> grade class decides to sell hoodies.

Write an equation for the amount of income the class gets from its sale of hoodies.

Number/ Hoodies	Income
14	280
20	400
36	720
49	980