

# Algebra I

## Notes Section 1.7

### Represent Functions as Rules & Tables

#### Big Ideas

1. How to create a table for a function, use the domain of the function as the input values and apply the function rule to each input to find its corresponding output.
2. How to write a rule for a function, determine the pattern that links each dependent variable (output) to its corresponding independent variable (input).

**Function:** \_\_\_\_\_

**Domain:** \_\_\_\_\_

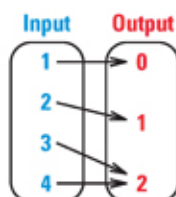
**Range:** \_\_\_\_\_

**EXAMPLE 1** Identify the domain and range of the function.

Input (gallons)	10	12	13	17
Output (dollars)	19.99	23.99	25.99	33.98

**D:** \_\_\_\_\_ **R:** \_\_\_\_\_

**Mapping Diagram:**



**EXAMPLE 2** Tell whether the pairing is a function.

a)

b)

\_\_\_\_\_

\_\_\_\_\_

Independent Variable: \_\_\_\_\_

Dependent Variable: \_\_\_\_\_

**EXAMPLE 3** The domain of the function  $y = 2x$  is 0, 2, 5, 7 and 8. Make a table for the function, then identify the range of the function.

x	$y = 2x$	y
0		
2		
5		
7		
8		

R: \_\_\_\_\_

**EXAMPLE 4** Write a rule for the function.

a)

Input	0	1	4	6	10
Output	2	3	6	8	12

b)

Time (hours)	1	2	3	4
Pay (dollars)	8	16	24	32

\_\_\_\_\_

\_\_\_\_\_

**EXAMPLE 5** You are buying concert tickets that cost \$15 each. You can buy up to 6 tickets. Write the amount (\$) you spend as a function of the number of tickets you buy. Identify the independent and dependent variables. Then identify the domain and range.

Amount Spent = \_\_\_\_\_ X \_\_\_\_\_

Independent Variable \_\_\_\_ Dependent Variable \_\_\_\_

# of Tickets							
Amount							

D: \_\_\_\_\_

R: \_\_\_\_\_