

Objectives.

- Identify the domain and range of relations and functions
- Determine whether a relation is a function.

Example #1

Give the domain and range for the relation shown.

First Class Stamp Rates						
Year	1900	1920	1940	1960	1980	2000
Rate (c)	2	2	3	4	15	33

- List the set of ordered pairs:
- Domain:
- Range:

In a *function*, there is only one output for each input, so each element of the domain is mapped to exactly one element in the range.

Example #2

Determine whether each relation is a function.

a)

Instant rice cooking times				
Servings	2	4	6	8
Cooking Time	5	8	10	11

b) from last name to Social Security number?

Try it!

a)

Shoe Prices			
Size	7	8	9
Price \$	35	35	35

b) from the number of items in a grocery cart to the total cost of the item in the cart.

Vertical Line Test

Words

Examples

Words		Examples

Use the vertical-line test to determine whether each relation is a function. If not, identify two points that the vertical line will pass through.

