

2 - 6 Functions

**These vocabulary terms MUST be placed on note cards and turned in by Friday for credit.

- 1) **Function** - a relationship that pairs each number in a given set of numbers with exactly one number in a second set of numbers.
- 2) **Function Rule** - The description of a function.

Example: The rule of the table

$$x \longrightarrow x - 4$$

**every value of "x" will be subtracted by four

- 3) **Arrow Notation** - the symbol used to show how one number is paired with another in a given function.

Example: $x \rightarrow x - 4$

4) **Function Table** - A table used to show values of the variable expression for a given function.

Completing a function table:

- function rule: $x \rightarrow x - 4$

*you must subtract all values of x by 4

x	$x - 4$
5	
10	
20	
50	
100	

Replace the value in the " x " column for " x " in the right column.

Problem 1: $5 - 4 = 1$

Problem 2: $10 - 4 = 6$

Problem 3: $20 - 4 = 16$

Problem 4: $50 - 4 = 46$

Problem 5: $100 - 4 = 96$

x	$x - 4$
5	1
10	6
20	16
50	46
100	96

Sometimes you will have to use the function table to find a pattern that will help you identify the function rule.

x	?
1	8
2	16
5	40
6	48
10	80

In order to identify the function rule, you must understand the changes to **x. Looking at the changes, the number in the left column is being multiplied by 8. So the function rule would be

$$\mathbf{x} \longrightarrow \mathbf{8x}$$