

**Math 4 Success**  
**FUNCTIONS**  
**LEVEL 4 Lesson 13**



**1. CONCEPT:**

Functions: Forming number pairs when the rule involves addition and subtraction.

**2. BEHAVIORAL OBJECTIVE:**

Given the rule, students will identify the replacement set as ordered pairs.

**3. MATHEMATICAL IDEAS:**

- a) A pair of numbers or objects taken in a particular order is called an ordered pair: "Ordered" because the order or position of the element is very important and "pair" because two elements are involved.

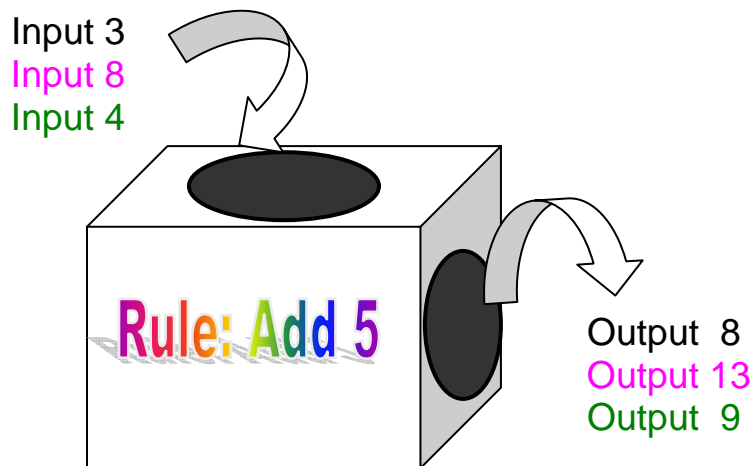
- b) An ordered pair is enclosed in parenthesis.
- c) Braces are symbols used to enclose a set of ordered pairs.  
Example: { (A, B), (X, 4) }.
- d) A set of ordered pairs when described by a rule that enables us to find any second member, given the first member, is called a function.

**4. KEY WORDS:**

number pairs    member    set    braces    rule    function

**5. ACTIVITIES:**

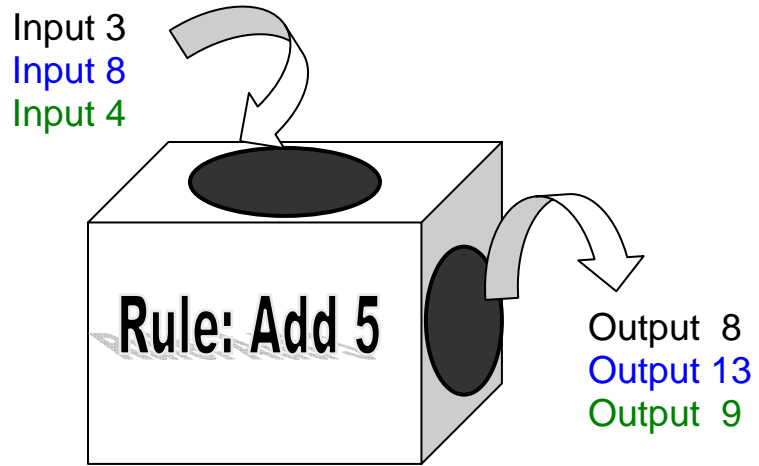
- a) Functions can be explored informally through the use of function machines. The function machine can be a box or a drawing of a machine that performs certain tasks according to a specified rule on any number.



# FUNCTIONS

## Worksheet # 1

Name \_\_\_\_\_



### Rule: Add 5

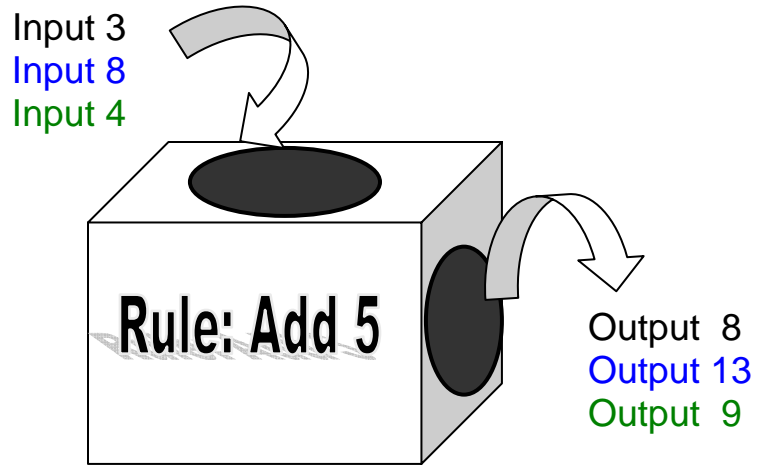
(1)	<u>Input</u>	<u>Output</u>
	3	_____
	7	_____
	8	_____
	2	_____
	12	_____
	4	_____
	6	_____

### Rule: Subtract 5

(2)	<u>Input</u>	<u>Output</u>
	12	_____
	8	_____
	6	_____
	14	_____
	9	_____
	5	_____
	7	_____

# FUNCTIONS

## Answers to Worksheet # 1



### Rule: Add 5

(1)	<u>Input</u>	<u>Output</u>
	3	<u>8</u>
	7	<u>12</u>
	8	<u>13</u>
	2	<u>2</u>
	12	<u>17</u>
	4	<u>9</u>
	6	<u>11</u>

### Rule: Subtract 5

(2)	<u>Input</u>	<u>Output</u>
	12	<u>7</u>
	8	<u>3</u>
	6	<u>1</u>
	14	<u>9</u>
	9	<u>4</u>
	5	<u>0</u>
	7	<u>2</u>

# FUNCTIONS

## Worksheet # 2

Name \_\_\_\_\_



Rule: add 7

Rule: subtract 4

(1)

<u>Input</u>	<u>Output</u>
3	_____
7	_____
8	_____
2	_____
12	_____
4	_____
6	_____

(2)

<u>Input</u>	<u>Output</u>
12	_____
8	_____
6	_____
14	_____
9	_____
5	_____
7	_____

# FUNCTIONS

## Answers to Worksheet # 2



Rule: add 7

Rule: subtract 4

(1)

<u>Input</u>	<u>Output</u>
3	<u>10</u>
7	<u>14</u>
8	<u>15</u>
2	<u>9</u>
12	<u>19</u>
4	<u>11</u>
6	<u>13</u>

(2)

<u>Input</u>	<u>Output</u>
12	<u>8</u>
8	<u>4</u>
6	<u>2</u>
14	<u>10</u>
9	<u>5</u>
5	<u>1</u>
7	<u>3</u>