1. **Variables**:
2. **declaration :**

var x;

1. **definition :**

x =5

**initialization = declaration+definition**

var x = 5

1. **usage:**

x+5

1. **Functions:**

() -> parenthesis or round brackets

[] -> square brackets

{} -> curly or flower brackets

The **first step** to use a function is to **‘Define a Function’**.

define the function means we have to explain to the computer what this function should do when it’s called.

The **next step** to use a function is to **‘Call a Function’**

We can call the function by its name and parenthesis.

Syntax: **function\_name();**

we can call this function multiple times in the program

Functions can be called repeatedly to do the same set of

instructions on different arguments.

The use of functions avoids repetition of code and hence

shortens our code.

**Functions with arguments:**

While declaring the function, we should mention the arguments

inside the parentheses separated by commas.

For e.g.: **function sum (num1, num2) {**

**}**

Similarly, while calling the function with parameters we need to

provide inputs as well. For more than one input, separate the

inputs by commas and in the same order as they were defined.

For example: Here we will call the function sum by writing

**sum(5,9);**

We call them ‘**User-defined**’ functions because we have created and

customized these functions from scratch.

we write functions :

A. To make the code more readable.

B. To make the code reusable.

C. To avoid writing repeated code.

Movement of sprites on canvas

North ------------ up

South ---------- down

East ------------- right

West ------------- left

Ball velocities

X +ve, Y=0 ----------- right /East (horizontal)

X -ve, Y=0 ------------ left/ West (horizontal)

Y +ve , X=0------------ down / south (vertical)

Y -ve ,X=0 ------------- up /North (vertical)

Both X,Y +ve ----------- South-East

Both X,Y -ve ---------- North-West

X +ve, Y-ve ---------- North East

X -ve , Y +ve --------- South West

