

## Experiment no : 01

Experiment Name : Basic use of matlab.

### Problem 1 :

Write a program where 2 number given as input from keyboard and you need to show the sum, subtraction , multiplication and division of the two numbers.

### Problem analysis :

- Input 2 numbers from the keyboard.
- Add 2 numbers
- Subtraction of 2 numbers
- Multiplication of 2 numbers
- Division of 2 numbers
- Display the results

### Coding :

```
clc
clear
%% Taking Input
num1 = input('Enter Number 1: ');
num2 = input('Enter Number 2: ');
%% For Addition
fprintf('Sum is : %f\n', num1 + num2);
%% For Subtraction
fprintf('Subtraction is : %f\n', num1 - num2);
%% Multiplication
fprintf('Multiplication is : %f\n', num1 * num2);
%% Division
fprintf('Division is : %f\n', num1 / num2);
```

### Output :

The screenshot displays the MATLAB R2014a environment. The Editor window shows the code for Problem 1. The Workspace window shows the variables num1 and num2 with values 20 and 30 respectively. The Command Window shows the output of the program.

**Code Editor:**

```
1 - clc
2 - clear
3 - %% Taking Input
4 - num1 = input('Enter Number 1: ');
5 - num2 = input('Enter Number 2: ');
6 - %% For Addition
7 - fprintf('Sum is : %f\n', num1 + num2);
8 - %% For Subtraction
9 - fprintf('Subtraction is : %f\n', num1 - num2);
10 - %% Multiplication
11 - fprintf('Multiplication is : %f\n', num1 * num2);
12 - %% Division
13 - fprintf('Division is : %f\n', num1 / num2);
```

**Workspace:**

Name	Value	Min	Max
num1	20	20	20
num2	30	30	30

**Command Window:**

```
Enter Number 1: 20
Enter Number 2: 30
Sum is : 50.000000
Subtraction is : -10.000000
Multiplication is : 600.000000
Division is : 0.666667
>>
```

**Problem 1**

- Input Two Number From the keyboard
- Add Two Number
- Subtract Two Number
- Multiplication of two number
- Division Two Number
- Showing the output

## Problem 2 :

Write a program where 3 numbers will be given as input and you have to add first two numbers and then you have to determine the remainder of the result of the addition divided by the third number.

## Problem analysis :

- i. Input 3 number from the keyboard
- ii. Add first 2 numbers
- iii. Remainder of addition and the 3<sup>rd</sup> number
- iv. Showing the result

## Coding :

```
clc
clear
%% Taking Input
num1 = input('Enter Number 1: ');
num2 = input('Enter Number 2: ');
num3 = input('Enter Number 3: ');
%{
1. Adding First two Number
2. Finding the remainder of the produced sum divided by number 3
%}
%% Ans Part
fprintf('The Result is : %f\n',mod((num1+num2),num3));
```

## Output :

The screenshot displays the MATLAB R2014a environment. The Editor window shows the code for Problem 2. The Workspace window shows the variables num1, num2, and num3 with values 10, 20, and 30 respectively. The Command Window shows the input prompts and the output result.

**Editor - /home/mortuza/Documents/MATLAB/mortuza\_099\_l1\_02.m**

```
1 - clc
2 - clear
3 - %% Taking Input
4 - num1 = input('Enter Number 1: ');
5 - num2 = input('Enter Number 2: ');
6 - num3 = input('Enter Number 3: ');
7 - %{
8 - 1. Adding First two Number
9 - 2. Finding the remainder of the produced sum divided by number 3
10 - %}
11 - %% Ans Part
12 - fprintf('The Result is : %f\n',mod((num1+num2),num3));
```

**Workspace**

Name	Value	Min	Max
num1	10	10	10
num2	20	20	20
num3	30	30	30

**Command Window**

```
Enter Number 1: 10
Enter Number 2: 20
Enter Number 3: 30
The Result is : 0.000000
```

**Problem 2**

- Input 3 Numbers
- Add Number1 And Number2
- Find the modulation of the sum and the number 3
- Display The Result