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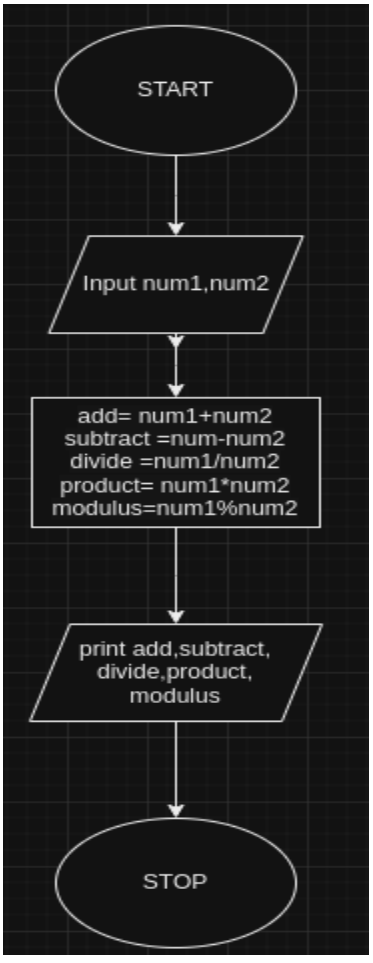
Experiment No.	1

AIM:	Use the formatted input/output statements, operators and expressions of C language.
Program 1	
PROBLEM STATEMENT :	Write a C program to input 2 numbers. Perform addition, subtraction, multiplication, division and modulus and display output.
ALGORITHM:	1. Program starts. 2. Declare integer num1 and num2 variables. 3. Input num1 and num2 from user and store in respective variables. 4. Store addition of both numbers in variable add. 5. Store difference of both numbers in variable subtract. 6. Store division of both numbers in variable divide. 7. Store product of both numbers in variable product. 8. Store remainder of both numbers in variable modulus. 9. Print add,subtract,divide,product,modulus. 10. Program ends.
FLOWCHART:	

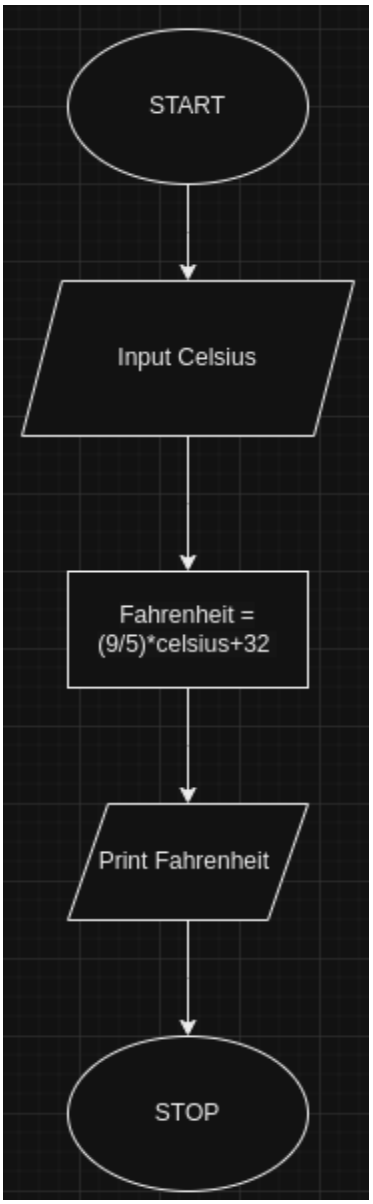
PROGRAM:

```c
#include <stdio.h>

int main()
{
   int num1, num2;
   printf("Enter two numbers: ");
   scanf("%d %d", &num1, &num2);
   int add = num1 + num2;
   int subtract = num1 - num2;
   int multiply = num1 * num2;
   double divide = (double)num1 / num2;
   int modulus = num1 % num2;
   printf("Sum: %d\n", add);
   printf("Difference: %d\n", subtract);
   printf("Product: %d\n", multiply);
   printf("Divide: %.2lf\n", divide);
   printf("Modulus: %d\n", modulus);
   return 0;
}
```

RESULT:

```
cyclops@cyclops:~$ cd Desktop/
cyclops@cyclops:~/Desktop$ cd PSIPL\ Semester\ 1/
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ gcc AddSubMultDivModulus.c
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ ./a.out
Enter two numbers: 23 95
Sum: 118
Difference: -72
Product: 2185
Divide: 0.24
Modulus: 23
```

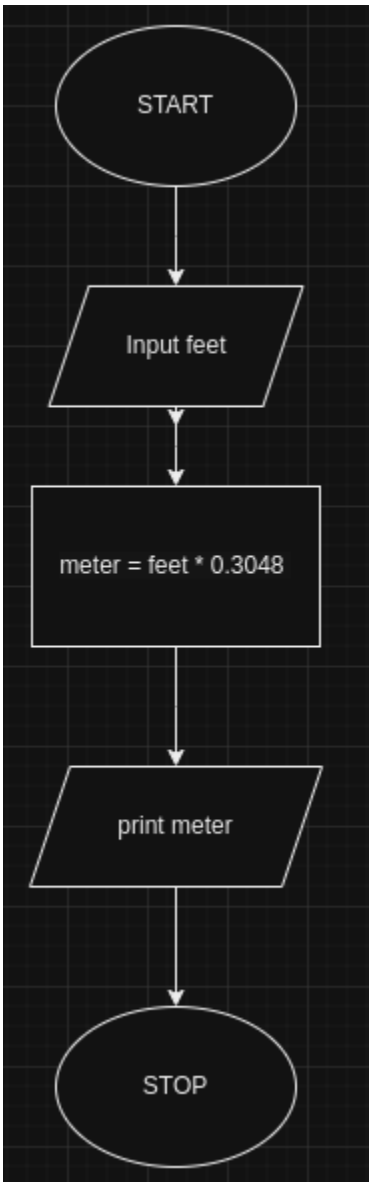
Program 2	
PROBLEM STATEMENT :	WAP to Convert Celsius to Fahrenheit. Answer should be rounded upto 2 decimal places.
ALGORITHM:	1. Program starts 2. Declare double variables for celsius and fahrenheit. 3. Input Celsius from user and store in variable celsius. 4. Calculate fahrenheit from the formula ($celsius * \frac{9}{5} + 32$) and store in variable fahrenheit. 5. Print fahrenheit. 6. Program ends.
FLOWCHART:	

PROGRAM:	`#include <stdio.h>`
	`int main()`
	`{`
	`  double celsius=0,fahrenheit=0;`
	`  printf("Enter Celsius : ");`

```c
    scanf("%lf",&celsius);
    fahrenheit= ((celsius*9/5)+32);
    printf("Fahrenheit: %.2lf \n", fahrenheit);
    return 0;
}
```

RESULT:

```
cyclops@cyclops:~$ cd Desktop/
cyclops@cyclops:~/Desktop$ cd PSIPL\ Semester\ 1/
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ gcc cel-fah.c
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ ./a.out
Enter Celsius : 42
Fahrenheit: 107.60
```

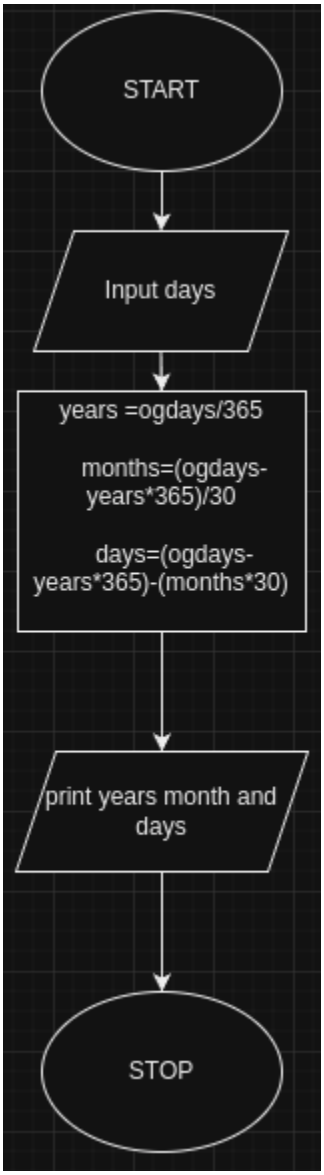
Program 3	
PROBLEM STATEMENT:	WAP to Convert Foot to Meter. Answer should be rounded upto 3 decimal places.
ALGORITHM:	1. Program starts. 2. Define the constant value to convert foot to meter as 0.3048. 3. Declare double variable feet and meter. 4. Input feet from the user and store in feet variable. 5. Calculate meter with the formula ($feet * 0.3048$) and store in meter. 6. Display meter. 7. Program ends.
FLOWCHART:	

PROGRAM:	`#include <stdio.h>`
	`#define F2M 0.3048`
	`int main()`
	`{`
	`  double feet=0,meter=0;`
	`  printf("Enter feet :");`
	`  scanf("%lf", &feet);`

```
    meter = feet*F2M;
    printf("Meter: %.3lf \n", meter);
    return 0;
}
```

RESULT:

```
cyclops@cyclops:~$ cd Desktop/
cyclops@cyclops:~/Desktop$ cd PSIPL\ Semester\ 1/
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ gcc foot-meter.
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ ./a.out
Enter feet :23.4
Meter: 7.132
```

Program 4	
PROBLEM STATEMENT:	Write a C program to convert days into year, month and days.
ALGORITHM:	1. Program starts 2. Declare integer variables ogdays,months,years,days. 3. Input days and store it in ogdays. 4. Calculate years ($\frac{ogdays}{365}$), months ($\frac{ogdays-years*365}{30}$), days($(ogdays - years * 365) - (months * 30)$) and store in respective variables. 5. Print years, months and days. 6. Program ends.
FLOWCHART:	

PROGRAM:

```c
#include <stdio.h>

int main()
{
    int ogdays,years=0,months=0,days=0;
    printf("Enter Days : ");
    scanf("%d",&ogdays);
    years =ogdays/365;
    months=(ogdays-years*365)/30;
    days=(ogdays-years*365)-(months*30);
    printf("years :%d",years);
    printf("\nmonths :%d",months);
    printf("\ndays :%d\n",days);
    return 0;
}
```

RESULT:

```
cyclops@cyclops:~$ cd Desktop/
cyclops@cyclops:~/Desktop$ cd PSIPL\ Semester\ 1/
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ gcc daysmonthsy
cyclops@cyclops:~/Desktop/PSIPL Semester 1$ ./a.out
Enter Days :4123
years :11
months :3
days :18
```