

# 1. WAP a program to see a given number is a multiple of 3

```
/*
1. WAP a program to see a given number is a multiple of 3
*/

#include<stdio.h>

void main(){

    int x ,y;

    printf("Enter the Start No :");
    scanf("%d",&y);
    printf("Enter the End No :");
    scanf("%d",&x);
    printf("Multiple of 3 Number :\n");
    for(int i = y;i <= x;i++){
        if(i % 3 == 0){
            printf("%d\n",i);
        }
    }

}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program1.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program1.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start No :1
Enter the End No :20
Multiple of 3 Number :
3
6
9
12
15
18
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

## 2. WAP to print the character whose ASCII is even.

```
/*
2. WAP to print the character whose ASCII is even.
*/
#include<stdio.h>

void main(){

    int start,end;

    printf("Enter the start number :");
    scanf("%d",&start);
    printf("Enter the end number :");
    scanf("%d",&end);

    printf("Print those character have even ASCII Value :\n");
    for(int i = start ;i <= end;i++){
        if(i % 2 == 0){
            printf("%d = %c\n",i,i);
        }
    }

}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program2.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program2.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the start number :1
Enter the end number :127
Print those character have even ASCII Value :
2 =
4 =
6 =
8 =
10 =

12 =

14 =
16 =
18 =
20 =
22 =
24 =
26 = ♦
28 =
30 =
32 =
```

3. WAP to print all even numbers in reverse order and odd numbers in the standard way. Both separately. Within a range.

```
/*
3. WAP to print all even numbers in reverse order and odd numbers in the
way. Both separately. Within a range.
*/
#include<stdio.h>

void main(){
    int start ,end;

    printf("Enter the Start Number :");
    scanf("%d",&start);
    printf("Enter the End Number :");
    scanf("%d",&end);

    printf("all even numbers in reverse order :\n");
    for(int i = end ; i >= start; i--){
        if(i % 2 == 0){
            printf("%d\n",i);
        }
    }

    printf("odd numbers in the standard :\n");
    for(int i = start ; i <= end; i++){
        if(i % 2 == 1){
            printf("%d\n",i);
        }
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program3.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program2.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program3.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start Number :1
Enter the End Number :20
all even numbers in reverse order :
20
18
16
14
12
10
8
6
4
2
odd numbers in the standard :
1
3
5
7
9
11
13
15
17
19
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

4. WAP to Find the sum of numbers that are divisible by 5 in the given range

```
/*
4. WAP to Find the sum of numbers that are divisible by 5 in the given range
*/

#include<stdio.h>

void main(){
    int start ,end,sum = 0;

    printf("Enter the Start Number :");
    scanf("%d",&start);
    printf("Enter the End Number :");
    scanf("%d",&end);

    for(int i = start ;i <= end;i++){
        if(i % 5 == 0){
            sum = sum + i;
        }
    }
    printf("Sum of numbers that are divisible by 5 :%d\n",sum);
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program4.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program4.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start Number :1
Enter the End Number :20
Sum of numbers that are divisible by 5 :50
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```



5. WAP to take the Number input and print all the factors of that number

```
/*
5. WAP to take the Number input and print all the factors of that number.
*/

#include<stdio.h>

void main(){
    int num;

    printf("Enter the number:");
    scanf("%d",&num);

    printf("factor of %d is \n",num);

    for(int i = 1 ;i <= num;i++){
        if(num % i == 0){
            printf("%d\n",i);
        }
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program5.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program5.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the number:15
factor of 15 is
1
3
5
15
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

6. WAP to calculate the factorial of a given number.

```
/*
6. WAP to calculate the factorial of a given number.
*/

#include<stdio.h>

void main(){
    int num,mul = 1;

    printf("Enter the Number :");
    scanf("%d",&num);

    for(int i = 1 ;i <= num;i++){
        mul = mul * i;
    }
    printf("factorial of %d is :%d\n",num,mul);
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program6.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Number :12
factorial of 12 is : 479001600
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

7. WAP to calculate the LCM of given two numbers.

```
#include<stdio.h>

void main(){
    int start ,end1,end2,ComNum,LCM;

    printf("Enter the Start Number :");
    scanf("%d",&start);
    printf("Enter the any two Number : \n");
    scanf("%d %d",&end1,&end2);

    for(int i = start ;i <= end1 && i <= end2;i++){
        if(end1 % i == 0 && end2 % i == 0){
            ComNum = i;
        }
    }
    LCM = (end1 * end2)/ComNum;
    printf("LCM of %d and %d is %d \n",end1 ,end2,LCM);
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program7.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program7.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start Number :1
Enter the any two Number :
12
15
LCM of 12 and 15 is 60
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```



8. WAP take two characters if these characters are equal then print the same but if they are unequal then print their difference....

```
/*
8. WAP take two characters if these characters are equal then print the s
they are unequal then print their difference....
*/

#include<stdio.h>

void main(){
    char start ,end,flag = 0;

    printf("Enter the Start character :");
    scanf(" %c",&start);
    printf("Enter the End character :");
    scanf(" %c",&end);

    for(char i = start ;i <= end;i++){
        if(start == end){
            printf("Characters are equal\n");
            flag = 1;
        }
    }
    if(flag == 0){
        printf("Difference = %d\n",end - start);
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ vim program8.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program8.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start character :A
Enter the End character :E
Difference = 4
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start character :A
Enter the End character :A
Characters are equal
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

9. WAP to calculate the square root of a number ranging from 100 to 300

```
/*
9. WAP to calculate the square root of a number ranging from 100 to 300
*/
#include<stdio.h>

void main(){
    int start ,end;

    printf("Enter the Start Number :");
    scanf("%d",&start);
    printf("Enter the End Number :");
    scanf("%d",&end);

    printf("Square root is ");
    for(int i = start ;i <= end;i++){
        for(int j = 1;j <= i;j++){
            if(j * j == i){
                printf("%d \n",j);
            }
        }
    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program9.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start Number :100
Enter the End Number :300
Square root is 10
11
12
13
14
15
16
17
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```

10. WAP to print the numbers in a given range and their multiplicative inverse. Suppose x is a number then its multiplicative inverse or reciprocal is  $1/x$ .  
The expected output for range 1 - 5

```
/*
10. WAP to print the numbers in a given range and their multiplicative inverse.
Suppose x is a number then its multiplicative inverse or reciprocal is 1/x.
The expected output for range 1 - 5
*/
#include<stdio.h>

void main(){
    int start ,end;
    float x = 1;

    printf("Enter the Start Number :");
    scanf("%d",&start);
    printf("Enter the End Number :");
    scanf("%d",&end);

    for(int i = start ;i <= end;i++){

        x = 1.0 / i;
        printf("%d = %f",i,x);

    }
}
```

```
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ cc program10.c
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$ ./a.out
Enter the Start Number :1
Enter the End Number :5
1 = 1.000000
2 = 0.500000
3 = 0.333333
4 = 0.250000
5 = 0.200000
dhiraj@dhiraj-HP:~/Cprogramming/Assignment/For loop$
```