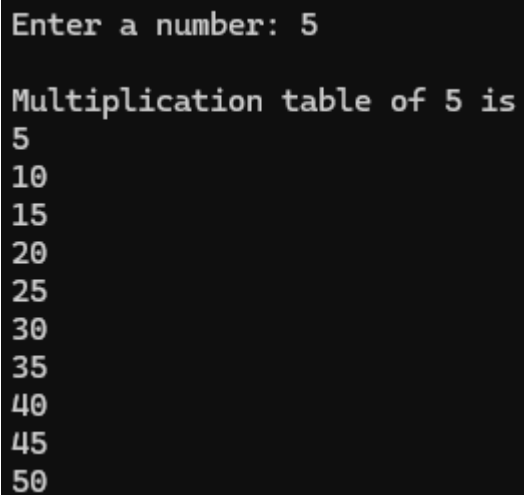


1. To print multiplication table of a number (use do while)

Code:

```
{  
    int num;  
    int i=1;  
    int a;  
  
    printf("Enter a number: ");  
    scanf("%d", &num);  
  
    printf("\nMultiplication table of %d is ", num);  
  
    do  
    {  
        a = num*i;  
        i = i+1;  
        printf("\n%d", a);  
    }  
    while(i<=10);  
  
    return 0;  
}
```

Ourput:



```
Enter a number: 5  
  
Multiplication table of 5 is  
5  
10  
15  
20  
25  
30  
35  
40  
45  
50
```

2. To check if a number is a palindrome (use while loop)

Code:

```
#include<stdio.h>
int main()
{
    int rev=0, num, n, r=0;

    printf("Enter a number: ");
    scanf("%d", &num);
    n = num;

    while(n>0)
    {
        r = n%10;
        rev = rev*10+r;
        n=n/10;
    }
    if(rev==num)
        printf("%d is a Palindrome.", num);
    else
        printf("%d is not a Palindrome.", num);

    return 0;
}
```

Ourput:

```
Enter a number: 1123211
1123211 is a Palindrome.
```

```
Enter a number: 11121
11121 is not a Palindrome.
```

3. To check if a number is prime or not (use while loop)

Code:

```
#include<stdio.h>
int main()
{
    int i=2, num;

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

    if(num==1)
        printf("1 is neither Prime nor Composite.");
    else
    {
        while(i<num)
        {
            if(num%i!=0)
                i=i+1;
            else
                break;
        }

        if(i==num)
            printf("%d is a Prime number.",num);
        else
            printf("%d is not a Prime number.",num);
    }
    return 0;
}
```

Ourput:

```
Enter a number: 97
97 is a Prime number.
```

```
Enter a number: 18
18 is not a Prime number.
```

4. To calculate the factorial of a number. (for loop)

Code:

```
#include<stdio.h>
int main()
{
    int fact=1,num,i;
    printf("Enter a number: ");
    scanf("%d",&num);

    for(i=1;i<=num;i++)
    {
        fact=fact*i;
    }
    printf("The Factorial of %d is: %d",num,fact);

    return 0;
}
```

Ourput:

```
Enter a number: 6
The Factorial of 6 is: 720
```

5. To calculate $1^1+2^2+3^3+4^4+5^5+.....n^n$ (use while loop)

Code:

```
#include<stdio.h>
int main()
{
    int n;
    int i=1;
    int sum=0;

    printf("Enter a number: ");
    scanf("%d",&n);

    while(i<=n)
    {
        sum = sum + pow(i,i);
        i++;
    }
    printf("The sum is: %d",sum);

    return 0;
}
```

Ourput:

```
Enter a number: 3
The sum is: 32
```