

/\* Write a C program to find the factorial of a given number(Iterative algorithm).\*/

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,n,fact=1;
```

```
    clrscr();
```

```
    printf("Enter a number to calculate it's factorial:- \n");
```

```
    scanf("%d",&n);
```

```
    for(i=1;i<=n;i++)
```

```
        fact=fact*i;
```

```
    printf("Factorial of a given number is:- %d \n",fact);
```

```
    getch();
```

```
}
```

---

/\* Write a C program to find the factorial of a given number(Recursive algorithm).\*/

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
long factorial(int);
```

```
void main()
```

```
{
```

```
    int number;
```

```
    clrscr();
```

```
    printf("Enter a number to calculate it's factorial:- \n");
```

```
    scanf("%d",&number);
```

```
    printf("%d! = %ld\n",number,factorial(number));
```

```
    getch();
```

```
}
```

```
long factorial(int n)
```

```
{
```

```
    if(n>=1)
```

```
    {
```

```
        return n*factorial(n-1);
```

```
    }
```

```
    else
```

```
    {
```

```
        return 1;
```

```
    }
```

```
}
```