

write a program to calculate factorial of given number.

Sample o/p

num = 5

fact =  $5 \times 4 \times 3 \times 2 \times 1 = 120$

num = int(input())

fact = 1

for i in range(<sup>num</sup>0, 0, -1):

fact = fact \* i

Print(fact)

5

5

20

60

120

fact = 1

fact = fact \* 5

(1) fact = 5

fact = 5

i = 4

5 \* 4 = 20

fact = 20

(0 = i) fact = 20

fact = 60

fact = 120

i = 2

60 \* 2

fact = 120

15. Sep :-

① write a program to check the given number is prime or not

num = int(input())

count = 0

Print("bc =", count)

for i in range(2, num, 1)

if (num % i == 0):

count = count + 1

else:

count = count

Print("ac =", count)

if (count == 0):

Print("Prime number")

else:

loop statements:

break

Continue

Pass.

```
for i in range(1,11,1):
    if (i==5):
```

```
        break;
    continue
```

```
    print(i)
```

```
else:
```

```
    print(i)
```

# program for prime number

```
num = int(input())
```

```
if num < 2:
```

```
    for i in range(2, num, 1):
```

```
        if (num % i == 0):
```

```
            print("not a prime number")
```

```
            break
```

```
else:
```

```
    print("prime number")
```

0.1 = 1 \* 0.1 = 0.1

(1) + 0.1 = 1.1

1.1 = 1.1

(1.1) + 0.1 = 1.2

1.2 = 1.2

7x2 7x3 7x4 7x5 7x6

loop is final value on that time  
it will comes to else



## while loop syntax:-

Initialization &

while (condition):

Statements

Incrementation / decrementation

```
name = "Cherry"
```

```
i = 0
```

```
while (i < len(name)):
```

```
    print ( f" Position = {i} : Value = {name[i]} ")
```

```
    i = i + 1
```

o/p:-

```
Position = 0 : Value = c
```

```
Position = 1 : Value = h
```