

For Loops

image

```
count = 1
n = 5
while count <= n:
    print(count)
    count += 1
```

```
1
2
3
4
5
```

Range function

```
list(range(10))
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

list(range(11, 20))
[11, 12, 13, 14, 15, 16, 17, 18, 19]

list(range(1, 10, 2))
[1, 3, 5, 7, 9]

list(range(10, 1, -1))
[10, 9, 8, 7, 6, 5, 4, 3, 2]
```

```
list(range(10, 1, -1))
[10, 9, 8, 7, 6, 5, 4, 3, 2]

list(range(10, 12, -2))
[]
```

```
for rahul in range(1, 10):
    print(rahul)
```

```
1
2
3
4
```

5
6
7
8
9

take a user input and print all the numbers from 1 to n

```
n = int(input())  
for i in range(1, n+1):  
    print(i)
```

10

1
2
3
4
5
6
7
8
9
10

Print squares of all the numbers from 1 to 5

*## Number * number is square of a number*

```
n = 5
```

```
for i in range(1, 6):  
    print(i * i, end = " ")
```

1 4 9 16 25

Patterns

```
n = int(input("How many times?"))  
for i in range(n):  
    print("*", end= " ")
```

How many times? 3

```
* * *
```

```
for i in range(3):  
    print("*")
```

```
*  
*  
*
```

Nested loop

image

*## print n * n pattern*

```
for i in range(3):  
    for j in range(3):  
        print("*", end = ' ')  
    print()
```

```
* * *  
* * *  
* * *
```

```
for i in range(3):  
    for j in range(3):  
        print("*")  
    print()
```

```
*  
*  
*
```

```
*  
*  
*
```

```
*  
*  
*
```

```
n = int(input())
for i in range(n):
    for j in range(n):
        print("*", end = ' ')
    print()
```

7

```
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
```

```
for i in range(3):
    print("*")
```

```
*
*
*
```

```
n = int(input())
for i in range(n):
    for j in range(i+1):
        print("*", end = " ")
    print()
```

3

```
*
* *
* * *
```

```
n = int(input())
for i in range(n+1):
    for j in range(i):
        print("*", end = " ")
    print()
```