



Type 1. Star pattern

In [1]: *#Python Program for printing pyramid pattern using stars*

```

num = int(input("enter the number of row = "))
for i in range (1,num+1):
    for j in range (1,i+1):
        print("*" , end=" ")
    print()

```

```

enter the number of row = 5
*
* *
* * *
* * * *
* * * * *

```

In [2]: *#Python Program for printing pyramid pattern using stars*

```

a = 8
for i in range(0, 5):
    for j in range(0, a):
        print(end=" ")
    a = a - 2
    for j in range(0, i+1):
        print("*" , end=" ")
    print()

```

```

      *
     * *
    * * *
   * * * *
  * * * * *

```

In [3]: *# Python Pyramid pattern using a star pattern*

```
k = 16
l = 1
for i in range(0, 5):
    for j in range(0, k):
        print(end=" ")
    k = k - 4
    for j in range(0, l):
        print("* ", end="")
    l = l + 2
    print()
```

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

In [4]:

```
num = int(input("enter the number of row = "))
k=1
for i in range (1,num+1):
    for j in range (1,k+1):
        print("*" , end=" ")
    k=k+2
    print()
```

```
enter the number of row = 4
*
* * *
* * * * *
* * * * * * *
```

In [5]:

```
num = int(input('Enter number of rows ='))
for i in range (0,num):
    for j in range (0,num-i-1):
        print(end=" ")
    for j in range (0, i+1):
        print("*",end="")
    print()
```

```
Enter number of rows =6
      *
    * *
  * * *
* * * *
* * * * *
* * * * * * *
```

```
In [9]: num = int(input("Enter no. of rows - "))
        for i in range (num,0,-1):
            for j in range(0,num-i):
                print (end=" ")
            for j in range (0,i):
                print("*",end=" ")
            print()
```

Enter no. of rows - 8

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

Type 2. Numeric pattern

In [16]: *# Python Numeric Pattern Example 1*

```
k = 1
for i in range(0, 5):
    for j in range(0, i+1):
        print(k, end=" ")
        k = k + 1
    print()
```

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

In [17]: *# Python Numeric Pattern Example 2*

```
for i in range(0, 5):
    num = 1
    for j in range(0, i+1):
        print(num, end=" ")
        num = num + 1
    print()
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

In [18]: *# Python Numeric Pattern Example 3*

```
numb = 1
inc = 1
for i in range(0, 5):
    for j in range(0, inc):
        print(numb, end=" ")
        numb = numb + 1
    print()
    inc = inc + 2
```

```
1
2 3 4
5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25
```

In [19]: *# Python Numeric Pattern Example 4*

```
last_num = 6
for row in range(1, last_num):
    for column in range(row, 0, -1):
        print(column, end=' ')
    print("")
```

```
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
```

In [20]: *# Python Numeric Pattern Example 5*

```
last_num = 9
for i in range(1, last_num):
    for j in range(-1+i, -1, -1):
        print(format(2**j, "4d"), end=' ')
    print("")
```

```
1
2    1
4    2    1
8    4    2    1
16   8    4    2    1
32  16   8    4    2    1
64  32  16   8    4    2    1
128 64  32  16   8    4    2    1
```

In [21]: *# Python Numeric Pattern Example 6*

```
last_num = 9
for i in range(1, last_num):
    for i in range(0, i, 1):
        print(format(2**i, "4d"), end=' ')
    for i in range(-1+i, -1, -1):
        print(format(2**i, "4d"), end=' ')
    print("")
```

```
1
1 2 1
1 2 4 2 1
1 2 4 8 4 2 1
1 2 4 8 16 8 4 2 1
1 2 4 8 16 32 16 8 4 2 1
1 2 4 8 16 32 64 32 16 8 4 2 1
1 2 4 8 16 32 64 128 64 32 16 8 4 2 1
```

In [22]: *# Python Numeric Pattern Example 7*

```
stop = 2
start = 1

current_num = stop
for row in range(2, 6):
    for col in range(start, stop):
        current_num -= 1
        print (current_num, end=' ')
    print("")
    start = stop
    stop += row
    current_num = stop
```

```
1
3 2
6 5 4
10 9 8 7
```

Type 3. Character pattern

In [23]: *# Python Character Pattern Example 1*

```
value = 65
for i in range(0, 5):
    for j in range(0, i+1):
        ch = chr(value)
        print(ch, end=" ")
        value = value + 1
    print()
```

A
B C
D E F
G H I J
K L M N O

In [24]: *# Python Character Pattern Example 2*

```
value = 65
for i in range(0, 5):
    for j in range(0, i+1):
        ch = chr(value)
        print(ch, end=" ")
    value = value + 1
    print()
```

A
B B
C C C
D D D D
E E E E E

In [25]: *# Python Character Pattern Example 3*

```
value = 65
inc = 1

for i in range(0, 5):
    for j in range(0, inc):
        ch = chr(value)
        print(ch, end=" ")
        value = value + 1
    inc = inc + 2
    print()
```

A
B C D
E F G H I
J K L M N O P
Q R S T U V W X Y

In [26]: *# Python Character Pattern Example 4*

```
decrement = 8
counter = 64
value = 65
for i in range(0, 5):
    for k in range(0, decrement):
        print(end=" ")
    for j in range(0, i+1):
        counter = counter + 1
    value = counter
    temp = value
    for j in range(0, i+1):
        ch = chr(value)
        print(ch, end=" ")
        value = value - 1
    value = temp
    decrement = decrement - 2
    print()
```

```
      A
     C B
    F E D
   J I H G
  O N M L K
```

In [27]: *# Python Program to Print Square Star Pattern*

```
square_side = int(input("Please enter the square dimension : "))

print("Square Pattern")

for i in range(square_side):
    for i in range(square_side):
        print("$", end = ' ')
    print()
```

```
Please enter the square dimension : 8
Square Pattern
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
$ $ $ $ $ $ $ $
```

In [28]: *# Python Program to Print Square Star Pattern*

```
square_side = int(input("Please Enter dimension of square : "))

print("Star Square Pattern")

for i in range(square_side):
    for i in range(square_side):
        print('*', end = ' ')
    print()
```

Please Enter dimension of square : 6

Star Square Pattern

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

In []: