Patterns

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

''''
output:
Enter a number: 5
*
* *
* * *
* * * *
* * * * *

'''
k=1
for i in range(1,n+1):
    for j in range(1,i+1):
        print(k,end=" ")
        k+=1
    print("\r")

'''
output:
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
'''

#for printing characters
num=65
for i in range(1,n+1):
    for j in range(1,i+1):
        print(chr(num),end=" ")
        num+=1
    print("\r")
'''
ouput:
A
B C
D E F
G H I J
K L M N O
'''
```

```
#n=int(input("Enter a number: "))
n=5
k=2*(n-1)
for i in range(1,n+1):
    #inner loop for no.of spaces
    for j in range(1,k+1):
        print(end=' ')
    k-=2
    #inner loop for no.of stars
    for j in range(1,i+1):
        print("* ",end='')
    print("\r")

'''
#Rotational pyramid
        *
      * *
    * * *
  * * * *
* * * * *
'''
z=2*(n-1)
for i in range(1,n+1):
    #inner loop for handling spaces
    for j in range(1,z+1):
        print(end=" ")
    z-=2
    #inner loop for printing numbers
    for j in range(1,i+1):
        print(j,end=" ")
    print('\r')

'''
        1
      1 2
    1 2 3
  1 2 3 4
1 2 3 4 5
'''
a=2*(n-1)
b=65
for i in range(1,n+1):
    #loop for spaces
    for j in range(1,a+1):
        print(end=" ")
    a-=2
    #innerloop for printing content
    for j in range(1,i+1):
        print(chr(b),end=' ')
        b+=1
    print('\r')
```

```
'''
        A
      B C
    D E F
  G H I J
K L M N O
'''
c=2*(n-1)
d=1
for i in range(1,n+1):
    for j in range(1,c+1):
        print(end=' ')
    c-=2
    for j in range(1,i+1):
        print(d,end=' ')
        d+=1
    print('\r')
'''      1
      2 3
    4 5 6
  7 8 9 10
11 12 13 14 15
'''
#traingle pattern in python

def triangle(n):

    c=n-1

    for i in range(1,n+1):

        for j in range(1,c+1):

            print(end=' ')

        c=c-1

        for k in range(1,i+1):

            print("*",end=' ')

        print('\r')

triangle(5)


'''

Output:

    *

   * *
```

```
  * * *
 * * * *
* * * * *
'''

#Reverse simple pyramid
def reverse_simple_pyraid(n):
    c=2*(n-1)
    for i in range(n+1,0,-1):
        for j in range(1,i+1):
            print("*",end=' ')
        for k in range(1,c+1):
            print(end=' ')
        c=c-1
        print('\r')

reverse_simple_pyraid(5)

'''
Output:
* * * * * *
* * * * *
* * * *
* * *
* *
*

'''
def reverse_simple_pyraid_alpha(n):
    c=2*(n-1)
```

```
    d=65
    for i in range(n+1,0,-1):
        for j in range(1,i+1):
            print(chr(d),end=' ')
            d+=1
            if(chr(d)=='Z'):
                break
        for k in range(1,c+1):
            print(end=' ')
        c=c-1
        print('\r')

reverse_simple_pyraid_alpha(6)

'''Output:
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
Z [
\ '''
```