

```
In [73]: #rows=6
#i=int(input("enter your range = "))
k= 2 * 6 - 2
for i in range(1,6):
    for j in range(1,k):
        print(end=" ")
    k=k-2
    for j in range(1,i+1):
        print(i, end=" ")
    print("\t")
```

```

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

```
In [76]: for i in range(1,6):
        for j in range(1,i+1):
            print(i,end=" ")
        print()
```

```

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

```
In [165]: rows=6
k=2*rows -2
for i in range(1,6):
    for j in range(1,k):
        print(end=" ")
    k=k-1
    for j in range(1,i+1):
        print(i, end=" ")
    print()
```

```

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

```
In [278]: for i in range(1,6):
        for j in range(1,i+1):
            print(i, end=" ")
        print()
    for i in range(6,0,-1):
        for j in range(1,i+1):
            print(i, end=" ")
        print()
```

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
5 5 5 5 5
```

```

    1 1 1 1 1
  2 2 2 2
3 3 3
2 2
1

```

```

In [189]: #rows=6
k= 2*6-2
for i in range(1,6):
    for j in range(1,k):
        print(end=" ")
    k=k-1
    for j in range(1,i+1):
        print(i, end=" ")
    print(" ")
k=5-2
for i in range(6,0,-1):
    for j in range(k,-1,-1):
        print(end=" ")
    k=k+1
    for j in range(1,i+1):
        print(i, end=" ")
    print(" ")

```

```

    1
  2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
5 5 5 5 5
4 4 4 4
3 3 3
2 2
1

```

```

In [251]: #rows=6
k=13
for i in range(1,6):
    for j in range(1,k):
        print(end=" ")
    k=k-2
    for j in range(1,i+1):
        print(i,end=" ")
    print()
k=1
for i in range(6,0,-1):
    for j in range(k,-1,-1):
        print(end=" ")
    k=k+2
    for j in range(1,i+1):
        print(i,end=" ")
    print()

```

```

    1
  2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
5 5 5 5 5
4 4 4 4

```

```

3 3 3
2 2
1

```

```

In [266]: word = "python"
x= ""
for i in word:
    x += i
    print(x)

```

```

p
py
pyt
pyth
pytho
python

```

```

In [272]: for i in range(1,11):
            for j in range(-1+i,-1,-1):
                print(format(2**j), 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
256 128 64 32 16 8 4 2 1
512 256 128 64 32 16 8 4 2 1

```

```

In [279]: rows = 5
for i in range(1, rows + 1):
    for j in range(1, i + 1):
        print(j, end=' ')
    print('')

```

```

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

```

```

In [280]: rows = 5
b = 0
for i in range(rows, 0, -1):
    b += 1
    for j in range(1, i + 1):
        print(b, end=' ')
    print('\r')

```

```

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

```

```

In [281]: rows = 5

```

```

num = rows
for i in range(rows, 0, -1):
    for j in range(0, i):
        print(num, end=' ')
    print("\r")

```

```

5 5 5 5 5
5 5 5 5
5 5 5
5 5
5

```

In [282]:

```

rows = 5
for i in range(rows, 0, -1):
    for j in range(0, i + 1):
        print(j, end=' ')
    print("\r")

```

```

0 1 2 3 4 5
0 1 2 3 4
0 1 2 3
0 1 2
0 1

```

In [283]:

```

rows = 5
i = 1
while i <= rows:
    j = 1
    while j <= i:
        print((i * 2 - 1), end=" ")
        j = j + 1
    i = i + 1
    print('\n')

```

```

1
3 3
5 5 5
7 7 7 7
9 9 9 9 9

```

In [284]:

```

rows = 5
for i in range(rows, 0, -1):
    num = i
    for j in range(0, i):
        print(num, end=' ')
    print("\r")

```

```

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

```

In [285]:

```

rows = 6
for i in range(1, rows):
    for j in range(i, 0, -1):
        print(j, end=' ')
    print("")

```

```

1
2 1

```

```

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

```

```

In [286]: rows = 5
          for i in range(0, rows + 1):
              for j in range(rows - i, 0, -1):
                  print(j, end=' ')
              print()

```

```

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

```

```

In [287]: start = 1
          stop = 2
          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

```

```

In [288]: rows = 6
          for i in range(1, rows):
              num = 1
              for j in range(rows, 0, -1):
                  if j > i:
                      print(" ", end=' ')
                  else:
                      print(num, end=' ')
                      num += 1
              print("")

```

```

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

```

```

In [289]: ascii_number = 65
          rows = 7
          for i in range(0, rows):
              for j in range(0, i + 1):
                  character = chr(ascii_number)
                  print(character, end=' ')
                  ascii_number += 1
              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 Z [\

In []:

V W X Y Z [\

In []:

V W X Y Z [\

In []:



BLACKBOX AI



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