

Assignment -03

```
In [1]: 1 #1).
        2
        3 #*
        4 #* *
        5 #* * *
        6 #* * * *
        7 #* * * * *
        8
        9 n=5
       10 for i in range(1,n+1):
       11     for j in range(i):
       12         print("*", end = " ")
       13     print()
```

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

```
In [16]: 1 #2)
        2
        3 #
        4 #
        5 #
        6 #
        7 #
        8
        9 n= 5
       10 for i in range(1,n+1):
       11     pass
       12     print("  "*(n-i) + "*" + "*"i)
```

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

In [31]:

```

1 #3)
2
3 #      *
4 #      * *
5 #      * * *
6 #      * * * *
7 #      * * * * *
8
9 n=5
10 for i in range(1,n+1):
11     print(" "*(n-i) + "*" *i)
12

```

```

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

```

In [42]:

```

1 #4)
2
3
4 #      * * * * * * * * *
5 #      * * * * * * *
6 #      * * * * *
7 #      * * *
8 #      *
9
10
11
12 #n=5
13 #for i in range(n,0,-2):
14 #     print(" "*(n-i)+"* "*i(2-1))
15 n=9
16 for i in range(n,0,-2):
17     print(" "*(n-i) + "*" *i)

```

```

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

```

In [44]:

```
1 #5)
2
3 #1
4 #1 2
5 #1 2 3
6 #1 2 3 4
7 #1 2 3 4 5
8
9
10 n=5
11 for i in range(1, n+1):
12     for j in range(1,i+1):
13         print(j, end=" ")
14     print()
15
16
```

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

In [55]:

```
1 #6)
2
3 #1
4 #2 3
5 #4 5 6
6 #7 8 9 10
7 #11 12 13 14 15
8
9 n=5
10 x=1
11 for i in range(1,n+1):
12     for j in range(i):
13         print(x, end=" ")
14         x+=1
15     print()
```

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

In []:

```
1 #7)
2
3
```

In [60]:

```
1 #8)
2
3 #1
4 #2 3
5 #4 5 6
6 #7 8 9 10
7 #11 12 13 14 15
8
9 n=5
10 x=1
11 for i in range(1,n+1):
12     for j in range(i):
13         print(x,end=" ")
14         x+=1
15     print()
```

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

In [61]:

```
1 #9)
2
3 #A [Use ASCII Values]
4 #B B
5 #C C C
6 #D D D D
7 #E E E E E
8
9 n=5
10 x=65 #chr(A)=65
11 for i in range(1,n+1):
12     for j in range(i):
13         print(chr(x),end=" ")
14         x+=1
15     print()
16
```

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

In [74]:

```

1  ##10)
2  A
3  B C
4  D E F
5  G H I J
6  K L M N O
7
8  n=5
9  x=65                #chr(A)=65
10 for i in range(1,n+1):
11     for j in range(i):
12         print(chr(x),end=" ")
13         x+=1
14     print()
15

```

File "C:\Users\Hp\AppData\Local\Temp\ipykernel_11292\4022955712.py", line 3

B C
^

SyntaxError: invalid syntax

In [75]:

```

1  #10)
2  #
3  #A
4  #B C
5  #D E F
6  #G H I J
7  #K L M N O
8
9
10
11
12
13 n=5
14 x=65                #chr(A)=65
15 for i in range(1,n+1):
16     for j in range(i):
17         print(chr(x),end=" ")
18         x+=1
19     print()

```

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

In [76]:

```
1 #11)
2 #K
3 #K K
4 #K K K
5 #K K K K
6 #K K K K K
7 n=5
8 for i in range(1,n+1):
9     for j in range(i):
10         print("k ", end=" ")
11     print()
12
```

```
k
k k
k k k
k k k k
k k k k k
```

In [83]:

```
1 #12)
2
3 #A
4 #A B
5 #A B C
6 #A B C D
7 #A B C D E
8
9 n=5
10 for i in range(1,n+1):
11     x=65 #chr(A)=65
12     for j in range(i):
13         print(chr(x),end=" ")
14         x+=1
15     print()
```

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

In [84]:

```
1 #13)
2 #P
3 #Py
4 #Pyt
5 #Pyth
6 #Pytho
7 #Python
8
9 str1="Python"
10 for i in range(1,6+1):    #len(str1)=6
11     print(str1[:i])
```

P
Py
Pyt
Pyth
Pytho
Python

In [103]:

```
1 #14)
2 #1 1 1 1 1
3 #2 2 2 2
4 #3 3 3
5 #4 4
6 #5
7
8 n=5
9
10 for i in range(1,6):
11     for j in range(6,i,-1):
12         print(i,end=" ")
13     print()
```

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

In [105]:

```
1 #15)
2 #6 6 6 6 6 6
3 #5 5 5 5 5
4 #4 4 4 4
5 #3 3 3
6 #2 2
7 #1
8
9 n=6
10 for i in range(n,0,-1):
11     for j in range(i):
12         print(i,end=" ")
13     print()
```

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

In [119]:

```
1 #16)
2 #0 1 2 3 4 5
3 #0 1 2 3 4
4 #0 1 2 3
5 #0 1 2
6 #0 1
7
8 n=6
9 for i in range(1,7):
10     for j in range(0,7-i):
11         print(j,end=" ")
12     print()
```

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


In [123]:

```
1 #17)
2
3 #1
4 #2 3 4
5 #5 6 7 8 9
6
7
8 n=3
9 x=1
10 y=2
11 for i in range(1, n+1):
12     for j in range(1,y):
13         print(x,end=" ")
14         x+=1
15     print()
16     y+=2
17
```

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

In [125]:

```
1 #18)
2
3 #6 5 4 3 2 1
4 #5 4 3 2 1
5 #4 3 2 1
6 #3 2 1
7 #2 1
8 #1
9
10 n=6
11 for i in range(0,n+1):
12     for j in range(n-i,0,-1):
13         print(j, end=" ")
14     print()
15
16
```

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

In [152]:

```

1  #19)
2
3  #1
4  #3 3
5  #5 5 5
6  #7 7 7 7
7  #9 9 9 9 9
8  n=5
9  for i in range(0,n+1):
10     for j in range(i):
11         print(((i*2)-1),end=" ")
12     print()

```

```

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

```

In [159]:

```

1  #20)
2  #1
3  #1 2
4  #1 2 3
5  #1 2 3 4
6  #1 2 3 4 5
7
8  n1=5
9  for i in range(1,n1+1):
10     n2=1
11     for j in range(n1,0,-1):
12         if j>i:
13             print(" ",end=" ")
14         else:
15             print(n2,end=" ")
16             n2+=1
17     print()

```

```

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

```

In [142]:

```

1  #24)
2
3  #*
4  #* *
5  #* * *
6  #* * * *
7  #* * * * *
8  #* * * * * *
9  #* * * * * * *
10 #* * * * * * *
11 #* * * * * *
12 #* * * * *
13 #* * * *
14 #* * *
15 #* *
16 #*
17
18
19 n=7
20 for i in range(1,n+1):
21     for j in range(i):
22         print("*", end = " ")
23
24     print()
25 for i in range(n,0,-1):
26     for j in range(i):
27         print("*", end = " ")
28
29     print()
30

```

```

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

```

In [145]:

```

1  #25)
2
3  #*
4  #* *
5  #* * *
6  #* * * *
7  #* * * * *
8  #* * * * * *
9
10 #* * * * * *
11 #* * * * *
12 #* * * *
13 #* * *
14 #* *
15 #*
16
17 n=7
18 for i in range(1,n+1):
19     for j in range(i):
20         print("*", end = " ")
21
22     print()
23 print()
24
25 for i in range(n,0,-1):
26     for j in range(i):
27         print("*", end = " ")
28
29     print()
30
31

```

```

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

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

```

In [146]:

```
1 #23)
2
3 #1
4 #2 1
5 #4 2 1
6 #8 4 2 1
7 #16 8 4 2 1
8 #32 16 8 4 2 1
9 #64 32 16 8 4 2 1
10 #128 64 32 16 8 4 2 1
11
12 n=8
13 for i in range(1,n+1):
14     for j in range(-1+i,-1,-1):
15         print(2**j,end=" ")
16     print()
17
```

```
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 [147]:

```
1 #22)
2 #1
3 #2 4
4 #3 6 9
5 #4 8 12 16
6 #5 10 15 20 25
7 #6 12 18 24 30 36
8 #7 14 21 28 35 42 49
9
10 n=7
11 for i in range(1,n+1):
12     for j in range(1,i+1):
13         print(i*j, end=" ")
14     print()
15
```

```
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
6 12 18 24 30 36
7 14 21 28 35 42 49
```

In [149]:

```
1 #21)
2 #1 2 3 4 5
3 #2 2 3 4 5
4 #3 3 3 4 5
5 #4 4 4 4 5
6 #5 5 5 5 5
7
8 n=5
9 for i in range(1,n+1):
10     for j in range(1,n+1):
11         if j<i:
12             print(i,end=" ")
13         else:
14             print(j,end=" ")
15     print()
```

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