

1

```
In [7]: n=int(input('enter a number:'))
        for i in range(n+1,0,-1):
            for j in range(0,i-1):
                print('5 ',end=" ")
            print("\n")
```

```
enter a number:5
5 5 5 5 5
5 5 5 5
5 5 5
5 5
5
```

2

```
In [10]: n=int(input('enter a number:'))
         for i in range(n+1,1,-1):
             for j in range(i):
                 print(j,end=" ")
             print("\n")
```

```
enter a number:5
0 1 2 3 4 5
0 1 2 3 4
0 1 2 3
0 1 2
0 1
0 1
```

3

```
In [11]: n=int(input('enter a number:'))
         for i in range(1,2*n,2):
             for j in range(0,i,2):
                 print(i,end=" ")
             print("\n")
```

```
enter a number:5
1
3 3
5 5 5
7 7 7 7
9 9 9 9 9
```

4

```
In [12]: n=int(input('enter a number:'))
         for i in range(1,n+1):
             for j in range(i,0,-1):
```

```
        print(j,end=" ")
    print(" ")
```

```
enter a number:5
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
```

5

In [14]:

```
n=int(input('enter a number:'))
c=0
for i in range(1,n+1):
    c+=i
    k=c
    for j in range(i):
        print(k,end=" ")
        k-=1
    print()
```

```
enter a number:4
1
3 2
6 5 4
10 9 8 7
```

6

In [15]:

```
n=int(input('enter a number:'))
for i in range(0,n):
    for j in range(0,i+1):
        r=1
        if(j>i-j):
            j=i-j
        for k in range(0,j):
            r=r*(i-k)
            r=r//(k+1)
        print(r,end=" ")
    print(" ")
```

```
enter a number:7
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
```

7

In [16]:

```
n=int(input('enter a number:'))
for i in range(1, n + 1):
```

```

for j in range(1, n + 1):
    if j <= i:
        print(i, end=' ')
    else:
        print(j, end=' ')
print()

```

```

enter a number:5
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

```

8

```

In [17]: n=int(input('enter a number:'))
for i in range(1,n+1):
    for j in range(1,i+1):
        print(i*j,end=" ")
    print()

```

```

enter a number:8
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
8 16 24 32 40 48 56 64

```

9

```

In [18]: n=int(input('enter a number'))
for i in range(n,0,-1):
    for j in range(0,n-i):
        print(end=" ")
    for i in range(i):
        print("*",end=' ')
    print()

```

```

enter a number6
* * * * *
* * * * *
* * * *
* * *
* *
*

```

10

```

In [19]: n=int(input('enter a number'))
m=(2*n)-2
for i in range(0,n):

```

```
for j in range(0,m):
    print(end=" ")
m=m-1
for j in range(0,i+1):
    print('*',end=" ")
print(" ")
```

```
enter a number7
```

11

In [20]:

```
n=int(input('enter a number'))
for i in range(n+1):
    print("* "*i)
print()
for i in range(n,0,-1):
    print("* "*i)
```

enter a number6

```

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

```

12

In [21]:

```
n=int(input('enter a number'))
for i in range(n+1):
    print("* "*i)
for i in range(n-1,0,-1):
    print("* "*i)
```

```
enter a number5
```

```

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

```

```
* *
*
```

13

In [22]:

```
n = int(input('enter a number'))
i = 1
while i <= n:
    j = i
    while j < n:
        print(' ', end=' ')
        j += 1
    k = 1
    while k <= i:
        print('*', end=' ')
        k += 1
    print()
    i += 1

i = n
while i >= 1:
    j = i
    while j <= n:
        print(' ', end=' ')
        j += 1
    k = 1
    while k < i:
        print('*', end=' ')
        k += 1
    print('')
    i -= 1
```

enter a number5

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

14

In [23]:

```
n=int(input('enter a number:'))
i = 0
while i <= n - 1:
    j = 0
    while j < i:
        print(' ', end=' ')
        j += 1
    k = i
    while k <= n - 1:
        print('*', end=' ')
        k += 1
```

```

print()
i += 1

i = n - 1
while i >= 0:
    j = 0
    while j < i:
        print(' ', end=' ')
        j += 1
    k = i
    while k <= n - 1:
        print('*', end=' ')
        k += 1
    print(' ')
    i -= 1

```

enter a number:5

```

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

```

15

In [24]:

```

n=int(input('enter a number'))
print("*" * n, end="\n")
i = (n // 2) - 1
j = 2
while i != 0:
    while j <= (n - 2):
        print("*" * i, end="")
        print("_" * j, end="")
        print("*" * i, end="\n")
        i = i - 1
        j = j + 2

```

enter a number14

```

*****
***** _ *****
***** _ *****
**** _ ****
*** _ ***
** _ **
* _ *

```