```python
n=int(input('enter the number'))
for i in range(n):
    for j in range(n):
        if i==0 or j==0 or i==n-1 or j==n-1:
            print('*',end='')
        else:
            print(' ',end='')
    print()
```

```
enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(n-i-1):
        print(' ',end='')
    for j in range(i+1):
        print(i+1,end=' ')
    print()
```

```
enter the number 4

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

```python
n=int(input('entr the number'))
for i in range(n):
    for j in range(i+1):
        print(j+1,end=' ')
    print()
```

```
entr the number 4

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

```python
n=int(input('enter the number'))
for i in range(n):
    for j in range(n-i):
        print(j+1,end=' ')
    print()
```

```
enter the number 4

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

```python
k=1
n=int(input('enter the number'))
for i in range(n):
    for j in range(i+1):
        print(k,end=' ')
        k+=1
    print()
```

```
enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(n):
    for j in range(i+1):
        if (i+j)%2==0:
            print('1',end=' ')
        else:
            print('0',end=' ')

    print()
```

```
enter the number 4

1
0 1
1 0 1
0 1 0 1
```

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(n-i-1):
        print(' ',end=' ')
    for j in range(i+1,0,-1):
        print(j,end=' ')
    for k in range(2,i+2):
        print(k,end=' ')
    print()
```

```
enter the number 4
```

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

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(i):
        print(' ',end='')
    for j in range(n):
        print('*',end='')
    print()
```

```
enter the number 4

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

```python
n=int(input('enter the number'))
for i in range(n-1):
    for s in range(n-i-1):
        print(' ',end='')
    for j in range(i+1):
        print(' *',end='')
    print()
for i in range(n):
    for s in range(i):
        print(' ',end='')
    for j in range(n-i):
        print(' *',end='')
    print()
```

```
enter the number 4

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

```python
n=int(input('enter the number'))
for i in range(n):
    for j in range(n):
        print('*',end=' ')
```

```
    print()
```

enter the number 6

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

```
n=int(input('enter the number'))
for i in range(n):
    for j in range(i+1):
        print('*',end=' ')
    print()
```

enter the number 5

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

```
n=int(input('enter the number'))
for i in range(n):
    for j in range(n-i):
        print('*',end=' ')
    print()
```

enter the number 5

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

```
n=int(input('enter the number'))
for i in range(n):
    for s in range(n-i):
        print(' ',end=' ')
    for j in range(i+1):
        print('*',end=' ')
    print()
```

enter the number 5

```
        *
      * *
```

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

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(i):
        print(' ',end=' ')
    for  j in range(n-i):
        print('*',end=' ')
    print()
```

enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(n):
    for j in range(n-i):
        print('*',end=' ')
    print()
for i in range(n-1):
    for k in range(i+2):
        print('*',end=' ')
    print()
```

enter the number 4

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

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(n-i-1):
        print(' ',end='')
    for j in range(i+1):
        print(' *',end='')
    print()
```

enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(n):
    for s in range(i):
        print(' ',end='')
    for j in range(i+1,n+1):
        print(j,end=' ')
    print()
```

```
enter the number 4

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

```python
n=int(input('enter the number'))
for i in range(n-1):
    for s in range(i):
        print(' ',end='')
    for j in range(i+1,n+1):
        print(j,end=' ')
    print()
for i in range(n):
    for s in range(n-i-1):
        print(' ',end='')
    for j in range(n-i,n+1):
        print(j,end=' ')
    print()
```

```
enter the number 4

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

```python
n=int(input('enter the number'))
for i in range(1,n+1):
    for j in range(1,2*n):
        if (i==n and j%2!=0) or i+j==n+1 or j-i==n-1:
            print('*',end=' ')
        else:
```

```
                print(' ',end=' ')
    print()
```

enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(1,n+1):
    for j in range(1,2*n):
        if (i==1 and j%2!=0) or i==j or i+j==2*n:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
```

enter the number 5

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

```python
n=int(input('enter the number'))
for i in range(1,n):
    for j in range(1,2*n):
        if i+j==n+1 or j-i==n-1:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
for i in range(1,n+1):
    for j in range(1,2*n):
        if i==j or i+j==2*n:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
```

enter the number 5

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

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

```python
n=int(input('enter the number'))
for i in range(1,n):
    for j in range(1,2*n):
        if (i==1 and j%2!=0) or i==j or i+j==2*n:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
for i in range(1,n+1):
    for j in range(1,2*n):
        if (i==n and j%2!=0) or i+j==n+1 or j-i==n-1:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
```

enter the number 4

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

```python
from math import factorial
n=int(input('enter the number'))
for i in range(n):
    for s in range(n-i-1):
        print(' ',end='')
    for j in range(i+1):
        print(factorial(i)//(factorial(j)*factorial(i-j)), end=" ")
    print()
```

enter the number 4

```
   1
  1 1
 1 2 1
1 3 3 1
```