1.Right Angle Triangle pattern

In [1]:
```
for i in range(1,6):
    print(' * ' *i)
```

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

2.Inverted Right Angle Triangle pattern

In [2]:
```
for i in range(5,0,-1):
    print(' * ' *i)
```

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

3.Pyramid Pattern

In [3]:
```
for i in range (1,6):
    print(''*(5-i)+' * '*(2*i-1))
```

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

In [4]:
```
for i in range(1, 6):
    print(' ' * (5 - i) + '* ' * (2 * i - 1))
```

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

4. Inverted Pyramid Pattern

In [5]:
```
for i in range (5,0,-1):
    print(''*(5-i)+' * '*(2*i-1))
```

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

In [6]:
```
for i in range(5,0,-1):
    print(' ' * (5 - i) + '* ' * (2 * i - 1))
```

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

5.Diamond Pattern

In [8]:
```
for i in range(1,6):
    print(''*(5-i)+'*'*(2*i-1))
    for i in range(4,0,-1):
        print(''*(5-i)+'*'*(2*i-1))
```

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

In [13]:
```
n = int(input("Enter the number of rows (half of diamond height): "))

# Upper half
for i in range(n):
    print(' ' * (n - i - 1) + '* ' * (i + 1))

# Lower half
for i in range(n - 2, -1, -1):
    print(' ' * (n - i - 1) + '* ' * (i + 1))
```

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

6.Hallow Square Pattern

In [9]:
```
for i in range(5):
    for j in range(5):
        if i==0 or i==4 or j==0 or j==4:
            print('*',end='')
        else:
            print('',end='')
            print()
```

```
******


**


**


******
```

In [12]:
```
size = int(input("Enter the size of the square: "))
for i in range(size):
    for j in range(size):
        # Print * for the borders
        if i == 0 or i == size - 1 or j == 0 or j == size - 1:
            print('*', end=' ')
        else:
            print(' ', end=' ')
    print()
```

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

7.Full Square pattern

In [14]:
```
for i in range(5):
    print('*'*5)
```

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

8.Right Angle triangle(Number Pattern)

In [16]:
```
for i in range(1,6):
    print(' '.join(str(x) for x in range(1,i+1)))
```

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

9.Inverted Right Angle Triangle(Number Pattern)

In [17]:
```
for i in range(5,0,-1):
    print(' '.join(str(x) for x in range(1,i+1)))
```

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

10.Floyd's triangle

In [18]:
```
num=1
for i in range(1,6):
    for j in range(1,i+1):
        print(num,end='')
        num+=1
        print()
```

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

In [19]:
```
rows = int(input("Enter the number of rows: "))

num = 1

for i in range(1, rows + 1):
    for j in range(1, i + 1):
        print(num, end=' ')
```

```
        num += 1
    print()
```

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

11.Hallow Right Angle triangle

In [20]:
```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    for j in range(1, i + 1):
        # Print '*' at the borders or the last row
        if j == 1 or j == i or i == rows:
            print('*', end=' ')
        else:
            print(' ', end=' ')
    print()
```

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

12.Hallow Pyramid Pattern

rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1): # Print leading spaces print(' ' * (rows - i), end='')

```
    for j in range(1, 2 * i):
        # Print * at the edges or on the last row
        if j == 1 or j == 2 * i - 1 or i == rows:
            print('*', end='')
        else:
            print(' ', end='')
    print()
```

13.Hallow Diamond Pattern

In [22]:
```
rows = int(input("Enter the number of rows (half of diamond height): "))

# Upper half
for i in range(1, rows + 1):
    print(' ' * (rows - i), end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print('*', end='')
        else:
            print(' ', end='')
    print()

# Lower half
for i in range(rows - 1, 0, -1):
```

```
    print(' ' * (rows - i), end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print('*', end='')
        else:
            print(' ', end='')
    print()
```

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

14.Hallow Diamond(Number Pattern)

In [24]:
```
rows = int(input("Enter the number of rows (half of diamond height): "))

# Upper half
for i in range(1, rows + 1):
    print(' ' * (rows - i), end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print(i, end='')
        else:
            print(' ', end='')
    print()

# Lower half
for i in range(rows - 1, 0, -1):
    print(' ' * (rows - i), end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print(i, end='')
        else:
            print(' ', end='')
    print()
```

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

15.Butterfly Pattern

In [25]:
```
rows = int(input("Enter the number of rows: "))

# Upper half
for i in range(1, rows + 1):
    # Left stars
    print('*' * i, end='')
```

```
    # Middle spaces
    print(' ' * (2 * (rows - i)), end='')
    # Right stars
    print('*' * i)

# Lower half
for i in range(rows, 0, -1):
    # Left stars
    print('*' * i, end='')
    # Middle spaces
    print(' ' * (2 * (rows - i)), end='')
    # Right stars
    print('*' * i)
```

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

16.Hallow Number Pyramid

In [26]:
```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    # Print leading spaces
    print(' ' * (rows - i), end='')

    for j in range(1, 2 * i):
        # Print number only at borders or last row
        if j == 1 or j == 2 * i - 1 or i == rows:
            print(i, end='')
        else:
            print(' ', end='')
    print()
```

```
   1
  2 2
 3   3
4     4
555555555
```

17.Full Star pyramid

In [27]:
```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    # Print leading spaces
    print(' ' * (rows - i), end='')

    # Print stars with spaces
    print('* ' * i)
```

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

18.Inverted Full Star pyramid

In [29]:
```
rows = int(input("Enter the number of rows: "))

for i in range(rows, 0, -1):
    # Print leading spaces
    print(' ' * (rows - i), end='')

    # Print stars with spaces
    print('* ' * i)
```

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

19.left Aligned pyramid Pattern

In [30]:
```
n=5
for i in range(1, n+1):
    for j in range(i):
        print('*', end='')
        print()

n=5
for i in range(1, n+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 [32]:
```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    print('* ' * i)
```

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

20.Right Aligned pyramid Pattern

In [33]:
```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    # Print spaces first
    print(' ' * (rows - i), end='')
    # Then print stars
    print('*' * i)
```

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

In [ ]: