1.Right Angle Triangle Patterns

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

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

In [3]:
```
for i in range(2,10):
    print( ' * ' *i)
```

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

2.Inverted Right Angle Triangle

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

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

In [8]:
```
for i in range(10,3,-1):
    print(' * ' *i)
```

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

3.Pyramid Pattern

In [10]:
```
for i in range(1,6):
    print(''*(5-i)+' * '*(2*i-1))
```

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

4.Inverted Pyramid Pattern

In [11]:
```
for i in range(5,0,-1):
    print(''*(5-i)+' * '*(2*i-1))
```

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

5.Diamond Pattern

In [13]:
```
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))
```

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

6.Hallow Square pattern

In [23]:
```
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()
```

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

7.Full Square Pattern

In [24]:
```
for i in range(5):
    print(' * '*5)
```

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

In [25]:
```
for i in range(3):
    print(' * '*3)
```

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

8.Right Angle Triangle(Number Pattern)

In [27]:
```
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 Pattern

for i in range(5,0,-1): print(' '.join(str(x) for x in range(1,i +1)))

10.Floyds Triangle

In [34]:
```
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 [ ]:
```
11.Hallow Right Angle Triangle
```

In [37]:
```
for i in range(1,6):
    for j in range(1,i+1):
        if j==1 or j==i or i==5:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()
```

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

12.Hallow pyramid Pattern

In [43]:
```
for i in range(1,6):
    for j in range(5 - i):
        print(' ',end=' ')
    for j in range(2 * i -1):
        if  j == 0 or j == 2 * i - 2 or i == 5:
            print('*',end=' ')
        else:
```

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

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

13.Hallow Diamond Pattern

In [49]:
```
n = 5
for i in range(1, n + 1):
    for j in range(n - i):
        print(' ',end=' ')
    for j in range(2 * i - 1):
            if j==0 or j==2 * i - 2:
                print('*',end=' ')
            else:
                print(' ',end=' ')
    print()


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

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

In [51]:
```
n = 5
for i in range(1, n + 1):
    for j in range(n - i):
        print(' ',end=' ')
    for j in range(2 * i - 1):
            if j==0 or j==2 * i - 2:
                print(i,end=' ')
            else:
                print(' ',end=' ')
    print()


for i in range(n - 1,0,-1):
    for j in range (n - i):
        print(' ',end=' ')
    for j in range(2 * i -1):
```

```
            if j == 0 or j == 2 * i - 2:
                print(i,end=' ')
            else:
                print(' ',end=' ')
    print()
```

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

In [58]:
```
n = 5
for i in range(1, n + 1):
    for j in range(i):
        print('*', end=' ')
    for j in range(2 * (n - i)):
        print(' ', end=' ')
    for j in range(i):
        print('*', end=' ')
    print()
for i in range(n, 0, -1):
    for j in range (i):
        print('*', end=' ')
    for j in range(2 * (n - i)):
        print(' ', end=' ')
    for j in range(i):
        print('*', end=' ')
    print()
```

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

16.Hallow Number Pyramid

In [83]:
```
n = 5
for i in range(1, n + 1):
    for j in range(n - i):
        print(' ',end=' ')


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

```
print()
```

```
                    5 5 5 5 5 5 5 5 5
```

17.Full Star Pyramid

In [68]:
```
n = 5

for i in range(1, n + 1):

    for j in range(n - i):
        print(' ',end=' ')

    for j in range(2 * i - 1):
        print('*', end=' ')


    print()
```

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

18.Inverted full Star Pyramid

In [69]:
```
n = 5

for i in range(n, 0, -1):

    for j in range(n - i):
        print(' ',end=' ')

    for j in range(2 * i - 1):
        print('*', end=' ')


    print()
```

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

19.Left Aligned Pyramid Pattern

In [78]:
```
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
```

20.Right Aligned Pyramid Pattern

In [79]:
```
n = 5

for i in range(1,n + 1):

    for j in range(n - i):
        print(' ',end=' ')

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

n = 5

for i in range(1,n + 1):

    for j in range(n - i):
        print(' ',end=' ')

    for j in range(i):
        print('*', end=' ')
    print()
```

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

In [ ]:
```

```