



Patterns in python loops

```
In [1]: #right angle triangle pattern
for i in range(1,6):
    print(' * '*i)
```

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

```
In [2]: # invert right angle triangle pattern
for i in range(5,0,-1):
    print(' #'*i)
```

```
# # # # #
# # # #
# # #
# #
#
```

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

```
&
& & &
& & & & &
& & & & & & &
& & & & & & & &
```

```
In [7]: # inverted pyramid pattern
for i in range(5,0,-1):
    print('*'(5-i)+' & '*(2*i-1))
```

```
& & & & & & & &
& & & & & &
& & & &
& & &
&
```

```
In [13]: # diamond pattern
for i in range(1,6):
    print('*'(5-i)+' D '*(2*i-1))
for i in range(4,0,-1):
    print('*'(5-i)+' D '*(2*i-1))
```

```

D
D  D  D
D  D  D  D  D
D  D  D  D  D  D  D
D  D  D  D  D  D  D  D  D
D  D  D  D  D  D  D
D  D  D  D  D
D  D  D
D

```

```

In [18]: #hallow square pattern
for i in range(5):
    for j in range(5):
        if i==0 or i==4 or j==0 or j==4:
            print('s', end='')
        else:
            print(' ',end='')
    print()

```

```

SSSSS
S  S
S  S
S  S
SSSSS

```

```

In [19]: #full square pattern
for i in range(5):
    print(' # '*5)

```

```

# # # # #
# # # # #
# # # # #
# # # # #
# # # # #

```

```

In [20]: # hallow right angle triangle pattern
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()

```

```

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

```

In []:

In []: