

35 Numeric Pattern Programs in Python

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

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

5 4 3 2 1	1 2 3 4 5 4 4 4 4	1	1	5 4 3 2 1 1 2 3 4 5	1	1
5 4 3 2	1 2 3 4 3 3 3	2 1 2	1 2 3	5 4 3 2	1 2	2 1
5 4 3	1 2 3 2 2	3 2 1 2 3	1 2 3 4 5	5 4 3	1 2 3	3 2 1
5 4	1 2 1	4 3 2 1 2 3 4	1 2 3 4 5 6 7	5 4	1 2 3 4	4 3 2 1
5	1	5 4 3 2 1 2 3 4 5	1 2 3 4 5 6 7 8 9	5	1 2 3 4 5 5 4 3 2 1	

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

1 0 0 0 0	1 1 1 1	1 2 3 4 5 4 3 2 1	1 10 11 20 21	
0 2 0 0 0	1 1 1 2	2 3 4 5 4 3 2	2 9 12 19 22	1 1 2 3 4 5
0 0 3 0 0	1 1 3 3	3 4 5 4 3	3 8 13 18 23	2 2 2 3 4 5
0 0 0 4 0	1 4 4 4	4 5 4	4 7 14 17 24	3 3 3 3 4 5
0 0 0 0 5	5 5 5 5	5	5 6 15 16 25	4 4 4 4 4 5
				5 5 5 5 5 5

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

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

```
In [2]: # Pattern - 2
for i in range(5):
    for j in range(i+1):
        print(5-i,end=' ')
    print('\n')
```

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

```
In [3]: # Pattern - 3
for i in range(5): # row
    for j in range(i+1): # column
        print(j+1, end=' ')
    print("\n")
```

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

```
In [4]: # Pattern - 4
for i in range(5):
    for j in range(i,-1,-1):
        print(j+1,end=' ')
    print("\n")
```

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

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

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

```
In [6]: # Pattern - 6
for i in range(5):
    for j in range(i,-1,-1):
        print(5-j,end=' ')
    print('\n')
```

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

```
In [7]: # Pattern - 7
for i in range(5):
    for j in range(5-i-1):
        print(' ',end=' ')
    for j in range(i+1):
        print(j+1,end=' ')
    print('\n')
```

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

```
In [8]: # Pattern - 8
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i+1):
        print(i+1,end=' ')
    print('\n')
```

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

```
In [9]: # Pattern - 9
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i,-1,-1):
        print(j+1,end=' ')
    print('\n')
```

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

```
In [10]: # Pattern - 10
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i+1):
        print(5-j,end=' ')
    print('\n')
```

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

```
In [11]: # Pattern - 11
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i+1):
        print(5-i,end=' ') # when the row is same than we will subtract row element
    print('\n')
```

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

```
In [12]: # Pattern - 12
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i,-1,-1):
        print(5-j,end=' ') # when the column is same than we will subtract column
    print('\n')
```

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

```
In [13]: # Pattern - 13
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(j+1,end=' ')
    print('\n')
```

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

```
In [14]: # Pattern - 14
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(5-j,end=' ')
    print('\n')
```

5 4 3 2 1

5 4 3 2

5 4 3

5 4

5

```
In [15]: # Pattern - 15
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(i+1,end=' ')
    print('\n')
```

1 1 1 1 1

2 2 2 2

3 3 3

4 4

5

```
In [16]: # Pattern - 16
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(5-i,end=' ')
    print('\n')
```

5 5 5 5 5

4 4 4 4

3 3 3

2 2

1

```
In [17]: # Pattern - 17
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(j+i+1,end=' ')
    print('\n')
```

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

```
In [18]: # Pattern - 18
for i in range(5):
    for j in range(5-i):
        print(j+1,end=' ')
    print('\n')
```

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

```
In [19]: # Pattern - 19
for i in range(5):
    for j in range(5-i):
        print(5-j,end=' ')
    print('\n')
```

5 4 3 2 1

5 4 3 2

5 4 3

5 4

5

```
In [20]: # Pattern - 20
for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print(j+1,end=' ')
    for j in range(4-i):
        print(4-i,end=' ')
    for j in range(i):
        print(' ',end=' ')
    print('\n')
```

1 2 3 4 5 4 4 4 4

1 2 3 4 3 3 3

1 2 3 2 2

1 2 1

1

```
In [21]: # Pattern - 21
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i,-1,-1):
        print(j+1,end=' ')
    for j in range(i):
        print(j+2,end=' ')
    for j in range(4-1-i):
        print(' ',end=' ')
    print('\n')
```

1

2 1 2

3 2 1 2 3

4 3 2 1 2 3 4

5 4 3 2 1 2 3 4 5

```
In [22]: # Pattern - 22
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range((i+1)*2-1):
        print(j+1,end=' ')
    print('\n')
```

1

1 2 3

1 2 3 4 5

1 2 3 4 5 6 7

1 2 3 4 5 6 7 8 9

```
In [23]: # Pattern - 23
for i in range(5):
    for j in range(5-1-i):
        print(' ',end=' ')
    for j in range(i,-1,-1):
        print(j+1,end=' ')
    for j in range(i):
        print(j+2,end=' ')
    for j in range(4-1-i):
```



```

        print(' ',end=' ')
    print('\n')

for i in range(5):
    for j in range(i):
        print(' ',end=' ')
    for j in range(5-i):
        print((5-i)-j,end=' ')
    for j in range(4-i):
        print(2+j,end=' ')
    for j in range(i):
        print(' ',end=' ')

    print('\n')

```

```

    1

  2 1 2

3 2 1 2 3

4 3 2 1 2 3 4

5 4 3 2 1 2 3 4 5

5 4 3 2 1 2 3 4 5

4 3 2 1 2 3 4

3 2 1 2 3

2 1 2

1

```

In [24]: # Pattern - 24

```

for i in range(5):
    for j in range(5-i):
        print((5-i)-j,end=' ')
    print('\n')
for i in range(5):
    for j in range(i+1):
        print((i+1)-j,end=' ')
    print('\n')

```

5 4 3 2 1

4 3 2 1

3 2 1

2 1

1

1

2 1

3 2 1

4 3 2 1

5 4 3 2 1

```
In [25]: # Pattern - 25
for i in range(5):
    for j in range(5-i):
        print(5-j,end=' ')
    print('\n')
for i in range(5):
    for j in range(i+1):
        print(5-j,end=' ')
    print('\n')
```

5 4 3 2 1

5 4 3 2

5 4 3

5 4

5

5

5 4

5 4 3

5 4 3 2

5 4 3 2 1

```
In [26]: # Pattern - 26
for i in range(5):
    for j in range(5-i):
        print(j+1,end=' ')
    print('\n')
for i in range(5):
    for j in range(i+1):
        print(j+1,end=' ')
    print('\n')
```

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

```
In [27]: # Pattern - 27
for i in range(5):
    for j in range(i+1):
        print(' ',end=' ')
    for j in range(5-i):
        print(j+1+i,end=' ')
    print('\n')

for i in range(5):
    for j in range(5-i):
        print(' ',end=' ')
    for j in range(i+1):
        print(5-i+j,end=' ')
    print('\n')
```

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

5

4 5

3 4 5

2 3 4 5

1 2 3 4 5

```
In [28]: # Pattern - 28
for i in range(5):
    for j in range(i+1):
        print(j+1,end=' ')
    print('\n')
```

```

for i in range(4):
    for j in range(4-i):
        print(j+1,end=' ')
    print('\n')

```

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

In [29]: *# Pattern - 29*

```

for i in range(5):
    for j in range(5):
        if i==j:
            print(i+1,end=' ')
        else:
            print(0,end=' ')
    print('\n')

```

1 0 0 0 0

0 2 0 0 0

0 0 3 0 0

0 0 0 4 0

0 0 0 0 5

In [30]: *# Pattern - 30*

```

for i in range(5):
    for j in range(5-i-1):
        print(1,end=' ')
    for j in range(i):
        print(i+1,end=' ')
    print('\n')

```

1 1 1 1

1 1 1 2

1 1 3 3

1 4 4 4

5 5 5 5

```
In [31]: # Pattern - 31
for i in range(5):
    for j in range(5-i):
        print(j+1,end=' ')
    for j in range(4-i):
        print(4-j,end=' ')
    print('\n')
```

1 2 3 4 5 4 3 2 1

2 3 4 5 4 3 2

3 4 5 4 3

4 5 4

5

```
In [32]: # Pattern - 32
for i in range(5):
    p=i
    for j in range(5):
        if (j+1)%2!=0:
            p+=1
            print(p,end=' ')
        else:
            p+=9
            print(p-2*i,end=' ')
    print('\n')
```

1 10 11 20 21

2 9 12 19 22

3 8 13 18 23

4 7 14 17 24

5 6 15 16 25

```
In [33]: # Pattern - 33
for i in range(5):
    for j in range(i+1):
        print(j+1,end=' ')
    for j in range(4-i):
        print(' ',end=' ')
    for j in range(4-i):
        print(' ',end=' ')
    print('\n')
```

```

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

```

```

1                1

1 2              2 1

1 2 3            3 2 1

1 2 3 4          4 3 2 1

1 2 3 4 5 5 4 3 2 1

```

In [34]: # Pattern - 34

```

for i in range(5):
    for j in range(5-i):
        print(5-j, end=' ')
    for j in range(i):
        print(' ', end=' ')
    for j in range(i):
        print(' ', end=' ')
    for j in range(5-i):
        print(j+1+i, end=' ')

    print('\n')

```

```

5 4 3 2 1 1 2 3 4 5

5 4 3 2      2 3 4 5

5 4 3        3 4 5

5 4          4 5

5            5

```

In [35]: # Pattern - 35

```

for i in range(5):
    for j in range(5 + 1):
        if j <= i:
            print(i+1, end=' ')
        else:
            print(j, end=' ')
    print()

```

```

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

```