

python-pattern-assign-1

Use the "Run" button to execute the code.

```
!pip install jovian --upgrade --quiet
```

```
import jovian
```

```
# Execute this to save new versions of the notebook  
jovian.commit(project="python-pattern-assign-1")
```

```
# PATTERN 1  
.....  
  
1  
12  
123  
1234  
12345  
.....  
  
for i in range(0,6,1):  
    for j in range(1,i+1):  
        print(j,end="")  
    print("")
```

```
1  
12  
123  
1234  
12345
```

```
#in the above code the space is present before 1
```

```
for i in range(1,6,1): for j in range(1,i+1): print(j,end="") print("")
```

```
# PATTERN 2  
.....  
  
1  
22  
333  
4444  
55555  
  
for i in range(1,6):  
    for j in range(1,i+1):  
        print(i,end="")  
    print("")
```

1
22
333
4444
55555

```
# PATTERN 3
```

```
.....
```

```
1  
12  
123  
1234  
12345  
1234  
123  
12  
1
```

```
for i in range(1,6,1):  
    for j in range(1,i+1):  
        print(j,end="")  
    print()  
for i in range(5,0,-1):  
    for j in range(1,i):  
        print(j,end="")  
    print()
```

1
12
123
1234
12345
1234
123
12
1

```
# PATTERN 4
```

```
for i in range(5,0,-1):  
    for j in range(1,i+1):  
        print(j,end="")  
    print()  
for i in range(1,6):  
    for j in range(1,i+1):  
        print(j,end="")  
    print()
```

12345
1234
123
12
1
1
12
123
1234
12345

```
# PATTERN 5
```

```
.....
```

```
54321
```

```
4321
```

```
321
```

```
21
```

```
1
```

```
1
```

```
21
```

```
321
```

```
4321
```

```
54321
```

```
for i in range(5,0,-1):  
    for j in range(i,0,-1):  
        print(j,end="")  
    print()  
for i in range(1,6):  
    for j in range(i,0,-1):  
        print(j,end="")  
    print()
```

54321
4321
321
21
1
1
21
321
4321
54321

```
# PATTERN 6
```

```
for i in range(1,6):  
    print(" "*(5-i),end="")
```

```

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

print("")

```

```

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

```

```

# PATTERN 7
for i in range(1,6):
    for j in range(5,i-1,-1):
        print(j,end=" ")
    print()

```

```

54321
5432
543
54
5

```

```

# PATTERN 8
for i in range(5,0,-1):
    for j in range(5,i-1,-1):
        print(j," ",end=" ")
    print()

```

```

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

```

```

# PATTERN 9
for i in range(1,6):
    for j in range(1,7-i):
        print(j,end=" ")
    print()

```

```

12345
1234
123
12
1

```

```
# PATTERN 10
```

```
k=1
for i in range(1,6):
    for j in range(1,i+1,1):
        print(k,"",end="")
        k+=1
    print()
```

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

```
# PATTERN 11
```

```
for i in range(1,6):
    for j in range(i,0,-1):
        print(j,end="")
    print("")
```

```
1
21
321
4321
54321
```

```
# PATTERN 12
```

```
for i in range(1,6):
    for j in range(i,i*5+1,5):
        print(j,"",end="")
    print("")
```

```
1
2 7
3 8 13
4 9 14 19
5 10 15 20 25
```

```
# PATTERN 13
```

```
#      1
#      1 1
```

```
#      1 2 1
#      1 3 3 1
#      1 4 6 6 1
```

```
import math as m
```

```
n=int(input())
for i in range(n):
    print(" "*(n-i),end="")
    for r in range(0,i+1):
        f=(m.factorial(i)/((m.factorial(i-r)*(m.factorial(r)))))
        print(int(f), "",end="")
    print()
```

6

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
```

```
# PATTERN 14
```

```
for i in range(1,6):

    for j in range(1,i+1):
        print(j,end="")
    print("")
    print(" "*(i+1),end="")
    for j in range(i-1,0,-1):
        print(j,end="")

    print("")
```

1

12

1

123

21

1234

321

12345

4321

PATTERN 14

```
for i in range(1,6):  
    for j in range(1,i+1):  
        print(j,end="")  
    print(" "*(i-j),end="")  
    for j in range(i-1,0,-1):  
        print(j,end="")  
    print("")
```

```
1  
121  
12321  
1234321  
123454321
```

PATTERN 15

```
for i in range(5,0,-1):  
    print(" "*(5-i),end="")  
    for j in range(1,i+1):  
        print(j,"",end="")  
    print("")
```

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

PATTERN 16

```
for i in range(1,6):  
    print(" "*(5-i),end="")  
    for j in range(1,i+1):  
        print(j,end="")  
    print(" ",end="")  
  
    print("")  
for i in range(4,0,-1):  
    print(" "*(5-i),end="")  
    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  
  1 2 3 4  
    1 2 3  
      1 2  
        1
```