

Pattern

January 15, 2025

```
[6]: n=4
      for i in range(n):
          for j in range(i+1):
              print('*',end=' ')
          print()
```

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

```
[7]: n=4
      for i in range(n):
          for j in range(i,n):
              print('*',end=' ')
          print()
```

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

```
[18]: n=5
        for i in range(n):
            for j in range (i,n):
                print(' ',end=' ')

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

            print()
```

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

```

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

    print()
```

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

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

```

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

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

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

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

```

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

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

```

      *
    * * *
```

```

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

```

```

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

```

```

1
1 2
1 2 3
1 2 3 4

```

```

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

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

    print()

```

```

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

```

```
[9]: for i in range(1,5):
      for j in range(1,i+1):
          print(j,end=' ')
      print()
```

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

```
[11]: p=1
      n=6
      for i in range(n):
          for j in range(i+1):
              print(p,end=' ')
          p+=1
          print()
```

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

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

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

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

```
5
4 4
```

```

3 3 3
2 2 2 2
1 1 1 1 1

```

```

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

```

```

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

```

```

[18]: n=5
p=0
for i in range(n):
    for j in range(i+1):
        print(p,end=' ')
    p+=2
    print()

```

```

0
2 2
4 4 4
6 6 6 6
8 8 8 8 8

```

```

[22]: n=5
for i in range(n):
    for j in range(i+1):
        if(i%2==0):
            print('1',end=' ')
        else:
            print('2',end=' ')
    print()

```

```

1
2 2
1 1 1

```

```
2 2 2 2
1 1 1 1 1
```

```
[24]: n=5
      for i in range(n):
          for j in range(i+1):
              if(i%2==0):
                  print('A',end=' ')
              else:
                  print('B',end=' ')
          print()
```

```
A
B B
A A A
B B B B
A A A A A
```

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

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

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

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

```
[8]: n=5
for i in range(n):
    p=1
    for j in range(i,n):
        print(' ',end=' ')

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

```

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

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

```

    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
```

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



```

    print()
n=4
for i in range(n):
    p=1
    for j in range(i+2):
        print(' ',end=' ')
    for j in range(i,n-1):
        print(p,end=' ')
        p+=1
    for j in range(i,n):
        print(p,end=' ')
        p+=1
    print()

```

```

    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
  1 2 3 4 5 6 7
    1 2 3 4 5
      1 2 3
        1

```

[30]:

```

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

```

```

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

```

[59]:

```

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

```

```

        p+=1
    print()

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

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

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

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

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

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

```

```

    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

```

```

[42]: n=5
for i in range(n):
    p=1
    for j in range(i+1):
        print(p,end=' ')
        p+=1

    p=1

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

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

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

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

```

```

1                1
1 2              1 2
1 2 3            1 2 3
1 2 3 4          1 2 3 4
1 2 3 4 5 1 2 3 4 5
1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8

```

```

1 2 3      4 5 6
1 2        3 4
1          2

```

```

[2]: n=5
      for i in range(n):
          for j in range(i+1):
              print('1',end=' ')
          print()

```

```

1
1 1
1 1 1
1 1 1 1
1 1 1 1 1

```

```

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

```

```

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

```

```

[5]: n=5
      p=1
      for i in range(n):
          for j in range(i+1):
              print(p,end=' ')
          p+=1
          print()

```

```

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

```

```

[18]: for i in range(1,6):
        for j in range(1,i+1):
            print(j,end=' ')
        for k in range(i-1,0,-1):
            print(k,end=' ')

```

```
print()
```

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

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

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

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

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

```

5 4 3
5 4
5

```

```

[2]: n=5
      for i in range(n):
          for j in range(i+1):
              print('1',end=' ')
          print()

```

```

1
1 1
1 1 1
1 1 1 1
1 1 1 1 1

```

```

[3]: n=5
      for rows in range(n):
          for col in range(rows,n):
              print('1',end=' ')
          print()

```

```

1 1 1 1 1
1 1 1 1
1 1 1
1 1
1

```

```

[6]: n=5
      for i in range(n):
          for j in range(i+1):
              print(' ',end=' ')
          for j in range(i,n):
              print('1',end=' ')
          print()

```

```

1 1 1 1 1
1 1 1 1
1 1 1
1 1
1

```

```

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

```

```

        print('2',end=' ')
    print()

```

```

1 1 1 1 1 2 2 2 2
  1 1 1 1 2 2 2
    1 1 1 2 2
      1 1 2
        1

```

```

[15]: n=5
for i in range(n):
    for j in range(i,n):
        print(' ',end=' ')
    for j in range(i+1):
        print('1',end=' ')
    for j in range(i):
        print('2',end=' ')
    print()
for i in range(n):
    for j in range(i+1):
        print(' ',end=' ')
    for j in range(i,n):
        print('1',end=' ')
    for j in range(i,n-1):
        print('2',end=' ')
    print()

```

```

        1
      1 1 2
    1 1 1 2 2
  1 1 1 1 2 2 2
1 1 1 1 1 2 2 2 2
1 1 1 1 1 2 2 2 2
  1 1 1 1 2 2 2
    1 1 1 2 2
      1 1 2
        1

```

```

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

```

```

1
1 2
1 2 3
1 2 3 4

```

```
[31]: n=5
p=0
for i in range(n):
    for j in range(i+1):
        print(p,end=' ')
    p+=2
    print()
```

```
0
2 2
4 4 4
6 6 6 6
8 8 8 8 8
```

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

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

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

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

```
[29]: n=10
p=0
for i in range(n):
    for j in range(i+1):
        if p%2==0:
```



```

        print(p,end=' ')
    p+=1
    print()

```

0

2 2 2

4 4 4 4 4

6 6 6 6 6 6 6

8 8 8 8 8 8 8 8 8

```

[2]: for next in range(-2,-10,2):
      print(next)

```

```

[10]: n=5
      for i in range (2):
          for i in range(n):
              for j in range(i+1):
                  print('*',end=' ')
              print()
      for i in range(n):
          print('*')

```

```

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

```

[]: