

50 Python Pattern Programs

Here are 50 different Python programs to print patterns. Each pattern includes a description and the corresponding Python code. Learn and explore different patterns with CodeWithCurious.

1. Right Angle Triangle Pattern

```
for i in range(1, 6):
    print('*' * i)
```

* * * * *

2. Inverted Right Angle Triangle Pattern

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

* * * *

* * * *

* * *

* *

*



3. Pyramid Pattern

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

```

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

4. Inverted Pyramid Pattern

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

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

5. Diamond Pattern

```
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))
```

A grid of black asterisks arranged in 8 rows. The first row has 3 stars. The second row has 5 stars. The third row has 7 stars. The fourth row has 5 stars. The fifth row has 3 stars. The sixth row has 1 star. The seventh row has 3 stars. The eighth row has 1 star.

6. Hollow 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('*', end='')
        else:
            print(' ', end='')
    print()
```

* * * * * * * *

* * * * * * * *



7. Full Square Pattern

```
for i in range(5):
    print('*' * 5)
```

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

8. Right Angle Triangle (Number Pattern)

```
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 (Number Pattern)

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



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

10. Floyd's Triangle

```
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
```

11. Hollow Right Angle Triangle

```
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. Hollow Pyramid Pattern

```
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. Hollow Diamond Pattern

```
n = 5  
for i in range(1, n + 1):
```



```
print(' ' * (n - i) + '*' + ' ' * (2 * i - 3) + ('*' if i > 1 else ''))  
for i in range(n - 1, 0, -1):  
    print(' ' * (n - i) + '*' + ' ' * (2 * i - 3) + ('*' if i > 1 else ''))
```

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

14. Hollow Diamond (Number Pattern)

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

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



15. Butterfly Pattern

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

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

16. Hollow Number Pyramid

```
for i in range(1, 6):
    for j in range(1, 6 - i):
        print(' ', end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print(i, end='')
```



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

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

17. Full Star Pyramid

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

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

18. Inverted Full Star Pyramid

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

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



```
*****
```

```
***
```

```
*
```

19. Left Aligned Pyramid Pattern

```
for i in range(1, 6):  
    print('*' * i)
```

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

20. Right Aligned Pyramid Pattern

```
for i in range(1, 6):  
    print(' ' * (5 - i) + '*' * i)
```

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



21. Pascal's Triangle

```
n = 5
for i in range(n):
    for j in range(n - i - 1):
        print(' ', end='')
    for j in range(i + 1):
        print(str(math.comb(i, j)) + ' ', end='')
    print()
```

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

22. Zig-Zag Pattern

```
for i in range(1, 6):
    if i % 2 == 0:
        print(' ' * (i - 1) + '*')
    else:
        print('*' * i)
```

```
*
```



```
*
```



```
*
```



```
*
```



```
*
```



23. Hourglass Pattern

```
for i in range(5, 0, -1):
    print(' ' * (5 - i) + '*' * (2 * i - 1))
for i in range(2, 6):
    print(' ' * (5 - i) + '*' * (2 * i - 1))
```

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

24. Diamond Shape with Numbers

```
for i in range(1, 6):
    print(' ' * (5 - i) + str(i) * (2 * i - 1))
for i in range(4, 0, -1):
    print(' ' * (5 - i) + str(i) * (2 * i - 1))
```

```

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



25. Hollow Rhombus Pattern

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

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

26. Numeric Pyramid

```
for i in range(1, 6):
    print(' ' * (5 - i) + ''.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
```



27. Hollow Diamond with Numbers

```
for i in range(1, 6):
    for j in range(1, 6 - i):
        print(' ', end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print(i, end='')
        else:
            print(' ', end='')
    print()
for i in range(4, 0, -1):
    for j in range(1, 6 - i):
        print(' ', end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print(i, end='')
        else:
            print(' ', end='')
    print()
```

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

28. Reverse Pyramid with Numbers

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



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

29. Diamond Star Pattern

```
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))
```

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

30. Full Number Pyramid

```
for i in range(1, 6):  
    print(' ' * (5 - i) + ''.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
```

31. Checkerboard Pattern

```
for i in range(5):  
    for j in range(5):  
        if (i + j) % 2 == 0:  
            print('*', end='')  
        else:  
            print(' ', end='')  
    print()
```

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

32. Hollow Circle Pattern

```
import math  
for i in range(1, 6):  
    for j in range(1, 6):  
        if math.dist([i, j], [3, 3]) <= 2:  
            print('*', end='')  
        else:
```



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

```
print()
```

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

33. Triangle of Numbers

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

34. Rhombus of Numbers

```
for i in range(1, 6):  
    print(' ' * (5 - i) + ''.join(str(x) for x in range(1, i + 1)))  
for i in range(4, 0, -1):  
    print(' ' * (5 - i) + ''.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  
1 2 3 4  
1 2 3  
1 2      1
```

35. Number Pattern (Decreasing)

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

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

36. Hollow Inverted Pyramid

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



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

37. Cross Pattern

```
for i in range(5):  
    for j in range(5):  
        if i == j or i + j == 4:  
            print('*', end='')  
        else:  
            print(' ', end='')  
    print()
```

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

38. Number Inverted Pyramid

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



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

39. Right Angle Star Triangle

```
for i in range(1, 6):  
    print(' ' * (5 - i) + '*' * i)
```

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

40. Left Angle Number Triangle

```
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
```



41. Star Hollow Triangle

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

```
*
```

```
* *
```

```
* * *
```

```
* *
```

```
*****
```

42. Upside Down Right Triangle

```
for i in range(5, 0, -1):
    print(' ' * (5 - i) + '*' * i)
```

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



43. Parallelogram Star Pattern

```
for i in range(5):
    print(' ' * i + '*' * 5)
```

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

44. Inverted Parallelogram Pattern

```
for i in range(5):
    print(' ' * (5 - i) + '*' * 5)
```

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

45. Reverse Hollow Diamond

```
for i in range(5, 0, -1):
    print(' ' * (5 - i) + '*' + ' ' * (2 * i - 3) + ('*' if i > 1 else ''))
for i in range(4, 0, -1):
    print(' ' * (5 - i) + '*' + ' ' * (2 * i - 3) + ('*' if i > 1 else ''))
```



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

```

46. Inverted Hollow Pyramid with Stars

```
for i in range(5, 0, -1):
    for j in range(1, 2 * i - 1):
        if j == 1 or j == 2 * i - 2 or i == 5:
            print('*', end="")
        else:
            print(' ', end="")
    print()
```

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

47. Full Hollow Diamond

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



```
for j in range(1, 6 - i):
    print(' ', end='')
for j in range(1, 2 * i):
    if j == 1 or j == 2 * i - 1:
        print('*', end='')
    else:
        print(' ', end='')
print()
for i in range(4, 0, -1):
    for j in range(1, 6 - i):
        print(' ', end='')
    for j in range(1, 2 * i):
        if j == 1 or j == 2 * i - 1:
            print('*', end='')
        else:
            print(' ', end='')
    print()
```

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

48. Rectangle of Numbers

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

1 2 3 4 5



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

49. Reverse Star Pattern

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

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

50. Pyramid of Numbers

```
for i in range(1, 6):  
    print(' ' * (5 - i) + ''.join(str(x) for x in range(1, i + 1)))
```

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



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