■ Complete 60+ Pattern Printing Coding Questions with Examples

■ Basic Star Patterns

Solid Square of Stars

■ Problem: Print a square of size n × n.

```
Example (n = 4):
****
****
****
****
```

Hollow Square of Stars

■ Problem: Print a hollow square of size n × n.

```
Example (n = 5):
*****
*   *
*   *
*   *
*****
```

Right-Angled Triangle

■ Problem: Print stars in right-angled triangle form.

```
Example (n = 5):
*
**
***
****
*****
```

Inverted Right-Angled Triangle

■ Problem: Print inverted right-angled triangle.

```
Example (n = 5):
*****
****
***
**
*
```

Mirrored Right-Angled Triangle

■ Problem: Print mirrored right-angled triangle.

```
Example (n = 5):
    *
   **
  ***
 ****
*****
```

Inverted Mirrored Triangle

■ Problem: Print inverted mirrored triangle.

```
Example (n = 5):
*****
 ****
  ***
   **
    *
```

Pyramid of Stars

■ Problem: Print pyramid with stars.

```
Example (n = 5):
    *
   ***
  *****
 *******
*********
```

Inverted Pyramid of Stars

■ Problem: Print inverted pyramid with stars.

```
Example (n = 5):
*********
 *******
  *****
   ***
    *
```

Diamond of Stars

■ Problem: Print diamond with stars.

```
Example (n = 5):
    *
   ***
  *****
   ***
    *
```

Hollow Diamond

■ Problem: Print hollow diamond with stars.

```
Example (n = 5):
    *
   * *
  *   *
   * *
    *
```

■ Number Patterns

Numbers in Square

■ Problem: Print numbers in square form.

```
Example (n = 4):
1111
2222
3333
4444
```

Increasing Numbers Triangle

■ Problem: Print triangle with increasing numbers.

```
Example (n = 5):
1
12
123
1234
12345
```

Floyd's Triangle

■ Problem: Print Floyd's triangle of numbers.

```
Example (n = 5):
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

Pascal's Triangle

■ Problem: Print Pascal's triangle.

```
Example (n = 5):
    1
   1 1
  1 2 1
 1 3 3 1
1 4 6 4 1
```

Row Repeated Pyramid

■ Problem: Row numbers repeated in pyramid.

```
Example (n = 5):
    1
   2 2
  3 3 3
 4 4 4 4
5 5 5 5 5
```

Continuous Numbers Triangle

■ Problem: Continuous numbers in triangle.

```
Example (n = 5):
1
23
456
78910
1112131415
```

Inverted Number Triangle

■ Problem: Inverted triangle with numbers.

```
Example (n = 5):
12345
1234
123
12
1
```

Row Repeated Numbers

■ Problem: Row repeated numbers in triangle.
```
Example (n = 5):
1
22
333
4444
55555
```

Hollow Pyramid of Numbers

■ Problem: Hollow pyramid with numbers.
```
Example (n = 5):
    1
   2 2
  3   3
 4     4
555555555
```

Continuous Square Numbers

■ Problem: Numbers increasing left to right, top to bottom.
```
Example (n = 4):
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
```

■ Alphabet Patterns

Square of Alphabets

■ Problem: Square of alphabets A-Z.
```
Example (n = 4):
AAAA
BBBB
CCCC
DDDD
```

Right-Angled Triangle Alphabets

■ Problem: Right-angled triangle alphabets.
```
Example (n = 5):
A
AB
ABC
ABCD
ABCDE
```

Inverted Alphabet Triangle

■ Problem: Inverted triangle alphabets.
```
Example (n = 5):
ABCDE
ABCD
ABC
AB
A
```

Alphabet Pyramid

■ Problem: Pyramid with alphabets.

```
Example (n = 5):
    A
   ABA
  ABCBA
 ABCDCBA
ABCDEDCBA
```

Alphabet Diamond

■ Problem: Diamond using alphabets.

```
Example (n = 3):
  A
 ABA
ABCBA
 ABA
  A
```

Row Increasing Alphabets

■ Problem: Row-wise increasing alphabets.

```
Example (n = 5):
A
AB
ABC
ABCD
ABCDE
```

Continuous Alphabets

■ Problem: Continuous alphabet sequence.

```
Example (n = 5):
A
BC
DEF
GHIJ
KLMNO
```

Hollow Alphabet Pyramid

■ Problem: Hollow pyramid alphabets.

```
Example (n = 4):
   A
  B B
 C   C
DDDDDDD
```

Mirrored Alphabet Triangle

■ Problem: Mirrored alphabet triangle.

```
Example (n = 4):
   A
  AB
 ABC
ABCD
```

Floyd's Triangle Alphabets

■ Problem: Floyd's triangle with alphabets.

```
Example (n = 5):
A
B C
D E F
G H I J
K L M N O
```

■ Mixed / Advanced Patterns

Half Pyramid with Stars & Numbers

■ Problem: Half pyramid mixing stars and numbers.

```
Example (n = 5):
1
1*
1*3
1*3*
1*3*5
```

0-1 Pyramid

■ Problem: Pyramid with 0s and 1s alternately.

```
Example (n = 5):
1
01
101
0101
10101
```

Butterfly Pattern

■ Problem: Butterfly with stars.

```
Example (n = 4):
*         *
**       **
***     ***
*******
***     ***
**       **
*         *
```

Sandglass Pattern

■ Problem: Sandglass shape stars.

```
Example (n = 4):
*******
 ******
  ****
   **
  ****
 ******
*******
```

Hollow Sandglass

■ Problem: Sandglass hollow.

```
Example (n = 5):
********
 *      *
  *    *
```

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

X Shape Stars

■ Problem: X shape using stars.
```
Example (n = 5):
*   *
 * *
  *
 * *
*   *
```

Plus Pattern

■ Problem: Plus sign using stars.
```
Example (n = 5):
  *
  *
*****
  *
  *
```

Cross Pattern

■ Problem: Cross using stars.
```
Example (n = 5):
*   *
 * *
  *
 * *
*   *
```

Concentric Square Numbers

■ Problem: Concentric squares with numbers.
```
Example (n = 4):
4444
4334
4324
4324
4334
4444
```

Spiral Matrix Numbers

■ Problem: Spiral filling of numbers.
```
Example (n = 3):
123
894
765
```

■ Special Patterns

Diamond Inside Rectangle

■ Problem: Hollow diamond inside rectangle.

```
Example (n = 7):
*******
**   **
* * * *
*  *  *
* * * *
**   **
*******
```

Circle Approximation

■ Problem: Circle with stars.

```
Example (n=7): Approximate circle with stars
```

Chessboard Pattern

■ Problem: Chessboard with * and spaces.

```
Example (n=8): Alternating rows of * and space
```

Hourglass Pattern

■ Problem: Hourglass shape.

```
Example (n=5):
*********
 *******
  *****
   ***
    *
   ***
  *****
 *******
*********
```

Rhombus Pattern

■ Problem: Rhombus shape.

```
Example (n=5):
    *****
   *****
  *****
 *****
*****
```

Hollow Rhombus

■ Problem: Rhombus hollow.

```
Example (n=5):
    *****
   *   *
  *   *
 *   *
*****
```

Parallelogram Pattern

■ Problem: Parallelogram stars.

```
Example (n=5):
*****
 *****
```

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

Zig-Zag Pattern

■ Problem: Zig-zag stars.
```
Example:
  *    *    *
 * * * * * *
*    *    *
```

Wave Pattern

■ Problem: Wave stars.
```
Example: Approximation wave-like
```

Heart Pattern

■ Problem: Heart shape with stars.
```
Example:
 **   **
**** ****
 *******
  ******
   ****
    **
```

■ Logic-Oriented Patterns

Binary Number Triangle

■ Problem: Triangle of alternating 0s and 1s.
```
Example (n = 5):
1
01
101
0101
10101
```

Palindrome Number Triangle

■ Problem: Palindrome triangle numbers.
```
Example (n = 5):
1
121
12321
1234321
123454321
```

Even Number Pyramid

■ Problem: Pyramid with even numbers.
```
Example (n = 5):
2
24
246
2468
246810
```

Odd Number Pyramid

■ Problem: Pyramid with odd numbers.

```
Example (n = 5):
1
13
135
1357
13579
```

Prime Number Triangle

■ Problem: Triangle with prime numbers.

```
Example (n=5):
2
3 5
7 11 13
17 19 23 29
31 37 41 43 47
```

Fibonacci Triangle

■ Problem: Triangle with Fibonacci sequence.

```
Example (n=5):
0
1 1
2 3 5
8 13 21 34
55 89 144 233 377
```

Concentric Circles Approx

■ Problem: Concentric circles with stars.

```
Example: Approximation with stars
```

Diamond with Numbers

■ Problem: Diamond using numbers.

```
Example (n=3):
  1
 121
12321
 121
  1
```

Reverse Pyramid Numbers

■ Problem: Reverse pyramid numbers.

```
Example (n=5):
12345
 1234
  123
   12
    1
```

Hourglass of Numbers

■ Problem: Hourglass shape numbers.

```
Example (n=5):
12345
 1234
  123
   12
    1
   12
  123
 1234
12345
```