

Write Program in C, C++, Java or Any Language.

1. Hollow Diamond Inside a Square

WAP to print a hollow diamond inside a square.

Input: n = 7

Output:

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

2. Hollow Rhombus

Question: Print a hollow rhombus pattern.

Input: n = 5

Output:

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

3. X Shape

Question: Print an X pattern.

Input: n = 5

Output:

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

4. Spiral Matrix Pattern

Question: Print a spiral matrix with numbers.

Input: n = 5

Output:

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

5. Zigzag Number Pattern

Question: Print a zigzag pattern using numbers.

Input: n = 5

Output:

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

6. Pascal's Triangle (Numbers)

Question: Print Pascal's triangle.

Input: n = 6

Output:

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

7. Star Pascal's Triangle

Question: Print Pascal's triangle using *.

Input: n = 5

Output:

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

8. Number Pyramid with Increasing Order

Question: Print a number pyramid in increasing order.

Input: n = 5

Output:

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

9. Numeric Diamond Pattern

Question: Print a numeric diamond pattern.

Input: n = 5

Output:

```
    1
  212
32123
4321234
543212345
4321234
32123
212
1
```

10. Butterfly Number Pattern

Question: Print a butterfly pattern using numbers.

Input: n = 4

Output:

```
1      1
12     21
123   321
12344321
123   321
12     21
1      1
```

11. Fancy Triangle Pattern

Question: Print a complex star triangle.

Input: n = 5

Output:

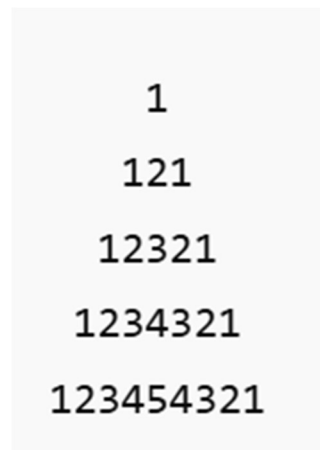


12. Pyramid of Palindromic Numbers

Question: Print a palindromic pyramid.

Input: n = 5

Output:



13. Hollow Square with Diagonals

Question: Print a hollow square with diagonals.

Input: n = 5

Output:



14. Triangle Spiral Pattern

Question: Print a spiral-like pattern using numbers.

Input: n = 5

Output:

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

15. Hollow Pyramid with Increasing Numbers

Question: Print a hollow pyramid where the outer edges contain numbers.

Input: n = 5

Output:

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