

Try this :

Write a program to display transpose of matrix entered by the user.

$$\begin{pmatrix} 1_{00} & 2_{01} & 3_{02} \\ 4_{10} & 5_{11} & 6_{12} \\ 9_{20} & 2_{21} & 2_{22} \end{pmatrix}$$

$$\begin{pmatrix} 1_{00} & 4_{01} & 7_{02} \\ 2_{10} & 5_{11} & 8_{12} \\ 3_{20} & 6_{21} & 9_{22} \end{pmatrix}$$

Output

$$\text{and } [i][j] = A[j][i]$$

orig.

Transp

(0,2)

(1,0)

(0,2)

(2,0)

(1,0)

(0,1)



0	1 00	5 7 01	2 3 02	4 13 03
1	5 2 10	6 11	7 10 12	14 8 13
2	9 8 20	10 15 21	11 22	12 15 23
3	13 12 30	14 8 31	12 15 32	16 33

$i=0, j=1$

Swap($A[0][1], A[1][0]$)

$i=1, j=0$

Swap($A[1][0], A[0][1]$)



Try this :

Given a square matrix, turn it by 90 degrees in a clockwise direction without using any extra space.

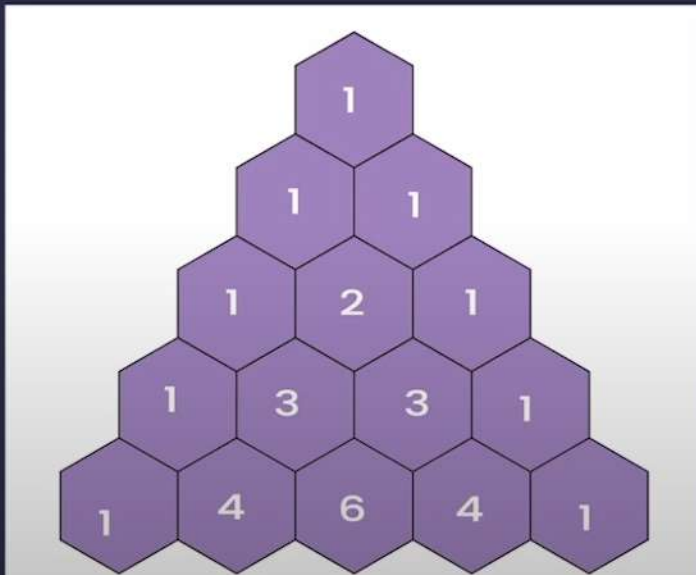
1	2	3	→	7	4	1
4	5	6		8	5	2
7	8	9		9	6	3



Try this :

Given an integer n , return the first n rows of Pascal's triangle.
In Pascal's triangle, each number is the sum of the two numbers directly above it as shown:

For $n=5$



0	1 00	1			
1	1 10	1 11	2		
2	1 20	2 21	1 22	3	
3	1 30	3 31	3 32	1 33	4
4	1 40	4 41	6 42	4 43	1 44



① $p[i][j] = p[i-1][j] + p[i-1][j-1]$

0	1 00	1			
1	1 10	1 11	2		
2	1 20	2 21	1 22	3	
3	1 30	3 31	3 32	1 33	4
4	1 40	4 41	6 42	4 43	1 44

② In every row, first & last element = 1

③ Jagged Array

②D

p

