HATFD1035

Print Pascal's Triangle

Write a program to generate and print the first n rows of Pascal's triangle without using built-in math or

array functions. For n = 5, the output should be:

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

PROGRAM CODE :

JAVA

```java
import java.util.*;
public class PascalsTriangle {
    public static void printPascalsTriangle(int numberOfRows) {
        for (int currentRow = 0; currentRow < numberOfRows; currentRow++) {
            for (int space = 0; space < numberOfRows - currentRow - 1; space++) {
                System.out.print(" ");
            }
            int value = 1;
            for (int column = 0; column <= currentRow; column++) {
                System.out.print(value + " ");
                value = value * (currentRow - column) / (column + 1);
            }
            System.out.println();
        }
    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int numberOfRows = sc.nextInt();
        printPascalsTriangle(numberOfRows);
    }}
```

SAMPLE INPUTS:

Input: 3

Output:

  1

 1 1

1 2 1

SAMPLE INPUTS:

Input: 4

Output:

   1

  1 1

 1 2 1

1 3 3 1

SAMPLE INPUTS:

Input: 5

Output:

    1

   1 1

  1 2 1

 1 3 3 1

1 4 6 4 1