

Pascal's Triangle

For a given integer K , print the first K rows of [Pascal's Triangle](#). Print each row with each value separated by a single space. The value at the n^{th} row and r^{th} column of the triangle is equal to $n! / (r! * (n-r)!)$ where indexing starts from 0 . These values are the binomial coefficients.

The Pascal Triangle

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

Input Format

A single line of input, integer K .

Constraints

$$2 \leq K \leq 10$$

Output Format

Output the first K rows of Pascal's triangle.

Sample Input

```
4
```

Sample Output

```
1
1 1
1 2 1
1 3 3 1
```