

K. Pascal's Triangle Sum

Time Limit: 1 seconds

Problem description

Blaise Pascal loved maths and he got a lot of contribution into mathematics, and his name is used to label for a triangular array of the binomial coefficients that arises in probability theory, combinatorics, and algebra.

n = 0	1
n = 1	1 1
n = 2	1 2 1
n = 3	1 3 3 1
n = 4	1 4 6 4 1
n = 5	1 5 10 10 5 1
n = 6	1 6 15 20 15 6 1
n = 7	1 7 21 35 35 21 7 1

Figure K. 1. the first eight rows of Pascal's triangle

Dat is a student who loves to become a mathematician. He studied about Pascal's Triangle properties and it was very interesting. He asked you to create a program to help him to calculate the sum value of row n^{th} of the triangle and the sum value of all cells in the pascal's triangle which is limited by $n + 1$ rows.

Input:

N: the limited number of rows in the pascal's triangle. ($0 \leq N < 63$)

Output:

S1: the sum value of row n^{th} of the triangle.

S2: the sum value of all cells in the pascal's triangle which is limited by $n + 1$ rows.

Example 1:

Input	Output
1	2 3

Example 2:

Input	Output
2	4 7