Consider a sequence of N integers where each integer between 1 and N appears exactly once.

A pair of numbers in the sequence is **confused** if the number that comes earlier in the sequence is larger than the later number.

The **confusion** of the sequence is the number of confused pairs in it. For example, the confusion of the sequence (1, 4, 3, 2) is 3 because there are 3 confused pairs: (4, 3), (4, 2) and (3, 2).

Write a program that calculates the number of sequences of length N whose confusion is exactly C.

Input

The first and only line of input contains two integers, N ($1 \leq N \leq 1000$) and C ($0 \leq C \leq 10000$).

Output

Output the number of sequences modulo 1000000007.

Sample test data

input	**input**	**input**
10 1	4 3	9 13
output	**output**	**output**
9	6	17957