For an integer array nums, an **inverse pair** is a pair of integers [i, j] where 0 <= i < j < nums.length and nums[i] > nums[j].

Given two integers n and k, return the number of different arrays consisting of numbers from 1 to n such that there are exactly k **inverse pairs**. Since the answer can be huge, return it **modulo** 109 + 7.

**Example 1:**

Input: n = 3, k = 0  
Output: 1  
Explanation: Only the array [1,2,3] which consists of numbers from 1 to 3 has exactly 0 inverse pairs.

**Example 2:**

Input: n = 3, k = 1  
Output: 2  
Explanation: The array [1,3,2] and [2,1,3] have exactly 1 inverse pair.

**Constraints:**

* 1 <= n <= 1000
* 0 <= k <= 1000