1067 – Combinations

Given **n** different objects, you want to take **k** of them. How many ways to can do it?

For example, say there are 4 items; you want to take 2 of them. So, you can do it 6 ways.

Take 1, 2
Take 1, 3
Take 1, 4
Take 2, 3
Take 2, 4
Take 3, 4

Input

Input starts with an integer **T (≤ 2000)**, denoting the number of test cases.

Each test case contains two integers **n (1 ≤ n ≤ 10^6), k (0 ≤ k ≤ n)**.

Output

For each case, output the case number and the desired value. Since the result can be very large, you have to print the result modulo **1000003**.

Sample Input	Output for Sample Input
3 4 2 5 0 6 4	Case 1: 6 Case 2: 1 Case 3: 15