UVa Online Judge

11481 Arrange the Numbers

Consider this sequence $\{1, 2, 3, \ldots, N\}$, as a initial sequence of first N natural numbers. You can rearrange this sequence in many ways. There will be $N!$ different arrangements. You have to calculate the number of arrangement of first N natural numbers, where in first M $(M \leq N)$ positions, exactly K $(K \leq M)$ numbers are in its initial position.

Example:

For, $N = 5$, $M = 3$, $K = 2$

You should count this arrangement $\{1, 4, 3, 2, 5\}$, here in first 3 positions 1 is in 1-st position and 3 in 3-rd position. So exactly 2 of its first 3 are in there initial position.

But you should not count this $\{1, 2, 3, 4, 5\}$.

Input

The first line of input is an integer T $(T \leq 1000)$ that indicates the number of test cases. Next T line contains 3 integers each, N $(1 \leq N \leq 1000)$, M, and K.

Output

For each case, output the case number, followed by the answer modulo 1000000007. Look at the sample for clarification.

Sample Input

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1
5 3 2
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Sample Output

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Case 1: 12
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