

1095 – Arrange the Numbers

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

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

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

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

Input

Input starts with an integer T (≤ 1000), denoting the number of test cases.

Each case contains three integers N ($1 \leq N \leq 1000$), M ($M \leq N$), K ($0 < K \leq M$).

Output

For each case, print the case number and the total number of possible arrangements modulo 1000000007.

Sample Input	Output for Sample Input
2 5 3 2 10 6 3	Case 1: 12 Case 2: 64320