

Practice Contest 2.0

Jun 02, 2018, 04:00 PM IST - Jun 03, 2018, 04:00 PM IST

- INSTRUCTIONS
- PROBLEMS
- SUBMISSIONS
- LEADERBOARD
- ANALYTICS
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Bob and Internship

Max. score: 100

This problem is no longer available for practice. Apology for any inconvenience!

- PROBLEM
- EDITORIAL
- MY SUBMISSIONS

Bob got selected for N day long internship in which he is required to complete M tasks . Each task can be completed in exactly one day . As Bob is very lazy he needs atleast K days for rest before starting any new task . In how many ways you can complete these M tasks. It does not matter in which order you complete these M tasks . Also it is not necessary to take rest after the last task . As output can be very large you have to print answer **Modulo $10^9 + 7$** .

NOTE : Two ways D_1, D_2, \dots, D_M and D'_1, D'_2, \dots, D'_M are considered diferent if for any $1 \leq i \leq M$ $D_i \neq D'_i$.

INPUT

First line of input contains T number of test cases .

Next T lines contains three space seperated integers N , M , K .

OUTPUT

For each test case print the number of ways in which Bob can complete these M tasks in new line .

CONSTRAINTS

$$1 \leq T \leq 10^6$$

$$1 \leq M \leq N \leq 10^6$$

$$0 \leq K \leq 10^6$$

SAMPLE INPUT	SAMPLE OUTPUT
3 4 2 1 4 2 2 5 2 0	3 1 10

Explanation

Test Case 1 : There are 4 days in which we have to complete 2 tasks . So possible combinations in which we can complete tasks are $[1, 3], [1, 4], [2, 4]$.

You can see we are taking rest of minimum 1 day between two tasks.

Test Case 2 : There is only one possible way $[1, 4]$ as we have to maintain two day gap between them .

