

[All Contests](#) > [Final Exam | Introduction to Algorithms | Batch 03](#) > [Exam Marks IV](#)

Exam Marks IV

Problem

Submissions

Leaderboard

Discussions

Problem Statement

Zarif has received **M** marks in his final term exam out of **1000**. However, he wishes to obtain a perfect score of 1000 marks just once in his life. His wish was granted by a fairy who provided him with a list of **N** marks to choose from. Zarif needs to select any number of marks from that list, and he can choose each mark any number of times he wants. Fairy asked him how many ways he can do this. She wanted Zarif to answer the maximum ways he can choose those marks.

Can you tell what will be the maximum number of ways to choose those marks to fulfill his dream?

Note: As the answer can be very long, whenever the answer gets bigger than **1e9+7**, mod it with **1e9+7**.

Input Format

- First line will contain **T**, the number of test cases.
- First line of each test case will contain **N** and **M**.
- Second line of each test case will contain a list **A** of **N** marks.

Constraints

1. $1 \leq T \leq 1000$
2. $1 \leq N \leq 1000$
3. $0 \leq M \leq 1000$
4. $1 \leq A[i] \leq 100; 0 \leq i < N$

Output Format

- Output the maximum number of ways.

Sample Input 0

```
5
5 1000
1 2 3 4 5
5 999
2 3 4 5 6
2 900
30 40
3 904
2 6 5
2 904
2 5
```

Sample Output 0

1
0
1
92
10

Sample Input 1

```

2
30 0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
20 0
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

```

Sample Output 1

158493259
888281419



Submissions: 152

Max Score: 20

Difficulty: Easy

Rate This Challenge:



More

C++20

```
1 #include <bits/stdc++.h>
2
3 using namespace std;
4
5
6
7 int main()
8 {
9     // Write your code here
10
11     return 0;
12 }
13
```

Line: 1 Col: 1

 [Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code