1232 - Coin Change (II)

SUBMIT	PDF (English)	Statistics	Forum
Time Limit: 1 second(s)		Memory Limit: 32 MB	

In a strange shop there are **n** types of coins of value $\mathbf{A_1, A_2 \dots A_n}$. You have to find the number of ways you can make **K** using the coins. You can use any coin at most **K** times.

For example, suppose there are three coins 1, 2, 5. Then if **K = 5** the possible ways are:

11111
1112
122
5

So, 5 can be made in 4 ways.

Input

Input starts with an integer **T (≤ 100)**, denoting the number of test cases.

Each case starts with a line containing two integers **n (1 ≤ n ≤ 100)** and **K (1 ≤ K ≤ 10000)**. The next line contains **n** integers, denoting $\mathbf{A_1, A_2 \dots A_n}$ **(1 ≤ A_i ≤ 500)**. All $\mathbf{A_i}$ will be distinct.

Output

For each case, print the case number and the number of ways **K** can be made. Result can be large, so, print the result modulo **100000007**.

Sample Input	Output for Sample Input
2 3 5 1 2 5 4 20 1 2 3 4	Case 1: 4 Case 2: 108

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