1231 – Coin Change (I)

In a strange shop there are **n** types of coins of value $\mathbf{A_1, A_2 \dots A_n}$. $\mathbf{C_1, C_2, \dots C_n}$ denote the number of coins of value $\mathbf{A_1, A_2 \dots A_n}$ respectively. You have to find the number of ways you can make **K** using the coins.

For example, suppose there are three coins 1, 2, 5 and we can use coin 1 at most 3 times, coin 2 at most 2 times and coin 5 at most 1 time. Then if **K = 5** the possible ways are:

1112
122
5

So, 5 can be made in 3 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 ≤ 50)** and **K (1 ≤ K ≤ 1000)**. The next line contains **2n** integers, denoting $\mathbf{A_1, A_2 \dots A_n, C_1, C_2 \dots C_n}$ $\mathbf{(1 \le A_i \le 100, 1 \le C_i \le 20)}$. 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 3 2 1 4 20 1 2 3 4 8 4 2 1	Case 1: 3 Case 2: 9