1233 - Coin Change (III)

SUBMIT	PDF (English)	Statistics	Forum
Time Limit: 2 second(s)		Memory Limit: 32 MB	

In a strange shop there are **n** types of coins of value $A_1, A_2 \dots A_n$. $C_1, C_2, \dots C_n$ denote the number of coins of value $A_1, A_2 \dots A_n$ respectively. You have to find the number of different values (from **1** to **m**), which can be produced using these coins.

Input

Input starts with an integer **T (≤ 20)**, denoting the number of test cases.

Each case starts with a line containing two integers **n ($1 \le n \le 100$), m ($0 \le m \le 10^5$)**. The next line contains **2n** integers, denoting $A_1, A_2 \dots A_n, C_1, C_2 \dots C_n$ **($1 \le A_i \le 10^5$, $1 \le C_i \le 1000$)**. All A_i will be distinct.

Output

For each case, print the case number and the result.

Sample Input	Output for Sample Input
2 3 10 1 2 4 2 1 1 2 5 1 4 2 1	Case 1: 8 Case 2: 4

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