[B1] Sun's Seeker's Socks (150 pts)

Time Limit: 1s
Memory Limit: 512MB

IMPORTANT: Please use fast I/O (`scanf/printf` for C++, `BufferedReader/StringBuilder` for Java) to process the test cases.

Problem Description

Within the Sun's Inquisition, socks are a symbol of prestige. Blanc Enyelu, the Seeker, loves to collect various kinds of socks. Short socks, long socks, brightly colored socks – she had collected almost every type of sock. She has only one rule in wearing them, and it's that her socks needed to be left-right neutral, i.e. no difference of sock type between the left foot and right foot.

Figure 1: Just one of pair of Blanc's numerours pairs of socks

Blanc's collection had grown to contain N types of socks, and she labels the types of socks from 1 to N. She has k_i sock pairs of type i; each pair is composed of 2 individual socks (obviously), for a total of $2k_i$ individual socks of type i. Socks of the same type are indistinguishable from one another.

Today is the Yellow Wedding, and only M sock types would be suitable for the event. These are given as types $t_1, \ldots, t_M$. Blanc was about to get a suitable pair of socks from her walk-in sock closet when suddenly the only light in the room went out. Unfortunately, she was intoxicated from the pre-wedding festivities the previous night, and for some reason all her socks were heaped into a pile in the closet. The closet being in complete darkness, she can only get socks randomly from the heap.

Since she's in a hurry to get to the ceremony, she decides to just pick up a large clump of random individual socks, then just pick out a suitable pair from this clump on the way. Thinking quickly — what is the minimum number of individual socks she needs to grab from the closet to guarantee that she gets at least one suitable pair of socks?

Input Specification

The input begin with a line containing an integer T denoting the number of test cases. T test cases follow.

The first line of each testcase contains two space separated integers N, the number of sock types, and M, the number of sock types suitable for the Yellow Wedding.

The second line of each testcase contains N space separated integers denoting k_i, the number of pairs of the i^{th} sock type.

The third and last line of each testcase contains M space separated integers denoting t_j, the labels of the suitable sock types.

Output Specification

For each test case, output a single integer — the number of socks Blanc needs to grab from the closet to guarantee she gets at least one suitable pair of socks.

Constraints

$1 \leq T \leq 100$
$1 \leq N \leq 10^4$
$1 \leq M \leq N$
$1 \leq k_i \leq 10^5$
$1 \leq t_j \leq N$
All t_j are unique in a case

Sample Input

```
3
1 1
1
1
2 2
6 4
1 2
5 3
3 5 7 11 13
1 2 4
```

Sample Output

```
2
3
44
```