

Full Bookshelf

Input File: bookshelf.txt

You have a bookshelf in your room that you use to hold all your books. However, as you get older and start to read books with more and more pages, your bookshelf doesn't seem to have enough room anymore. Given a bookshelf with a certain number of rows, each of which a certain width, find out if it is possible to keep all of your books on the bookshelf, and if not, the least amount of books that you must get rid of in order to fit the rest.

Input:

The first row contains an integer N, followed by N sets of input. In each set of input, the first line contains two integers, the first of which is the number of rows your bookshelf has and the second is the width of each row. The next line contains an integer K, and the last line contains K integers, each one representing the width of one of your books.

Output:

For each input set, if you are able to fit all of the books on the bookshelf, output '0'. Otherwise, output the least amount of books that you must get rid of.

Example Input:

```
3
3 20
8
7 8 6 7 9 8 7 6
2 30
11
5 6 4 1 7 12 6 2 9 5 3
4 10
9
15 11 2 6 9 1 13 5 3
```

Example Output:

```
1
0
3
```