
Problem A. Task Managment

Input file: standard input
Output file: standard output
Time limit: 1 second
Memory limit: 256 megabytes

Google's new project Soli is a really high accuracy interaction sensor which will read fingers motions up to 10,000 frames per seconds. They simply explain: "Project Soli is using radar to enable new types of touchless interactions – one where the human hand becomes a natural, intuitive interface for our devices. The Soli sensor can track sub-millimeter motions at high speed and accuracy. It fits onto a chip, can be produced at scale, and can be used inside even small wearable devices."



An IoT company decided to use a Soli sensor in one of their product as it is a small sensor, very useful and from the user perspective, it looks easy to use and simply attractive. But the problem is, the cost of task development using the sensor is quite high so it is not really cost efficient to be used on all the tasks of the company's product. At the same time there are only a limited number of task each Soli sensor is capable of performing and each task development will cost differently for the company. So your task is to write a program which will find the maximum number of tasks a Soli sensor can perform while the total cost of tasks development would not be more than a decided price by the company.

Input

First line consists of a positive integer $T \leq 100$ which is the number of test case.

Each test case has 3 positive integer n ($1 \leq n \leq 50$), the number of different task the company have in mind, p ($1 \leq p \leq 50$), the maximum number of task a Soli sensor can perform, and q ($1 \leq q \leq 50$), the maximum total cost of all task development that the company have decided.

This line will be followed by a line containing n integer, c_i ($0 \leq c_i \leq 10$) which is the cost of applying the i th task using the Soli sensor. The costs has been sorted in increasing order.

Output

For each test case, output a line in the format **Case x : M** , where x is the case number (starting from 1) and M is the maximum number of task, the company can apply using Soli.

Example

standard input	standard output
3	Case 1: 2
3 6 10	Case 2: 1
4 6 6	Case 3: 2
4 2 5	
4 4 5 7	
3 2 9	
1 3 5	

Note

In the first case, the number of task is 3, maximum number of task the Soli can do is 6 and the maximum total cost allowed is 10. Out of the three task, the company can only pick the first and second task or the first and third task before reaching the maximum total cost.

In the second case, the company can only pick either the first, second or the third task. They cannot pick more than one task, as the maximum total cost allowed is not enough.

In the third case, although the company have enough budget to develop all task, the Soli can only do a maximum of 2 task. So the answer is 2.