Problem C. Qualification Round

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the Quick-Start Guide to get started.

Small input 11 points	Solve C-small
Large input 22 points	Solve C-large

Problem

You've just advanced from the Qualification Round of Google Code Jam Africa 2010, and you want to know how many of your fellow contestants advanced with you. To give yourself a challenge, you've decided only to look at how many people solved each problem.

The Qualification Round consisted of **P** problems; the i^{th} problem was fully solved by $\mathbf{S_i}$ contestants. Contestants had to solve **C** problems in order to advance to the next round. Your job is to figure out, using only that information, the maximum number of contestants who could have advanced.

Input

The first line of the input gives the number of test cases, **T**. T lines follow. Each will consist only of space-separated integers: first **P**, then **C**, then P integers $\mathbf{S_0 ... S_{P-1}}$.

Output

For each test case, output one line containing "Case #x: y", where x is the case number (starting from 1) and y is the maximum number of contestants who could have advanced (in other words, the maximum number of contestants who could have solved at least **C** problems).

Limits

$1 \le T \le 100$
$1 \le C \le P$

Small dataset

$1 \le P \le 6$
$0 \le S_i \le 1000$

Large dataset

$1 \le P \le 60$
$0 \le S_i \le 10^{17}$

Sample

Input	Output
2 2 2 73 100 3 2 245 272 238	Case #1: 73 Case #2: 377