apac test
powered by Google Code Jam

Round C APAC Test 2016

Questions asked **2**

− Submissions

gRanks

| 6pt | Not attempted **1263/2254 users** correct (56%) |
| 10pt | Not attempted **923/1243 users** correct (74%) |

gFiles

| 9pt | Not attempted **529/1189 users** correct (44%) |
| 17pt | Not attempted **222/493 users** correct (45%) |

gGames

| 10pt | Not attempted **85/221 users** correct (38%) |
| 18pt | Not attempted **13/44 users** correct (30%) |

gMatrix

| 11pt | Not attempted **826/1065 users** correct (78%) |
| 19pt | Not attempted **157/549 users** correct (29%) |

− Top Scores

johngs	100
cchao	100
NAFIS	100
exprosic	100
orenguy	83
nhho	82
yaray	82
BananaTree	82
mkrjn99	82
tapasjain	82

Problem B. gFiles

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 9 points | Solve B-small |
| Large input 17 points | Solve B-large |

Problem

Alien tech company G has a very old file transfer tool that is still in use today. While the tool is running, it reassures users by giving status updates on both the percentage of files transferred so far and the number of files transferred so far. The status updates during the process might look like this:

```
 20% |==>-------|       1 files transferred
100% |==========|       5 files transferred
```

But the percentage isn't precise; it is simply truncated before the decimal point (i.e. floored to the next lowest or equal 1%). That is, both 1.2% and 1.7% would be displayed as 1%.

Some users may want to know the exact total number of files, so you want to modify the tool so that the status updates look like this:

```
 20% |==>-------|       1 out of 5 files transferred
100% |==========|       5 out of 5 files transferred
```

But you've realized that it may or may not be possible to know the number of files. Given the status updates that the tool displays, either figure out how many files there are, or determine that it can't be done (i.e., there are multiple possible values for the number of files). The status updates are not guaranteed to occur at regular intervals and are not guaranteed to occur whenever a file is transferred.

Input

The first line contains **T**, the number of test cases. **T** test cases follow. Each test case consists of one line with an integer **N**, the number of status updates output by the tool, followed by **N** lines with the format P_i K_i, where P_i and K_i are integers representing the percentage and number of files transferred at some point in the process. The updates are given listed in chronological order -- that is, both the P_i values and the K_i values are nondecreasing throughout a test case.

Output

For each case, output a line starts with "Case #x: y", where x is the number of the case (starting from 1), and y is either the total number of files, or -1 if that number is ambiguous.

Limits

$1 \le$ **T** ≤ 50.
$1 \le$ **N** ≤ 100.
$0 \le P_i \le 100$

Small dataset

$0 \le K_i \le 2000$
The answer is guaranteed not to exceed 2000.

Large dataset

$0 \le K_i \le 10^{15}$
The answer is guaranteed not to exceed 10^{15}.

Sample

Input	Output
3	Case #1: 5
2	Case #2: -1
20 1	Case #3: 23

```
100 5
10
25 241
27 262
43 407
44 413
57 536
64 601
67 637
84 789
95 893
96 903
10
0 0
8 2
8 2
17 4
30 7
39 9
69 16
73 17
82 19
91 21
```