

code jam

printf("hello, world!\n");

Round 1A 2012

[A. Password Problem](#)**B. Kingdom Rush**[C. Cruise Control](#)[Ask a question](#)[View my submissions](#)

Submissions

Password Problem

10pt	3 incorrect attempts 3130/3381 users correct (93%)
10pt	Not attempted 2970 users attempted

Kingdom Rush

15pt	In progress... 1388/2701 users correct (51%)
18pt	Not attempted 1299 users attempted

Cruise Control

17pt	Not attempted 29/113 users correct (26%)
30pt	Not attempted 14 users attempted

Top Scores

SnapDragon	100
pieguy	100
dzhulgakov	100
squark	100
msg555	100
dzetkulict	100
wata	100
Plagapong	100
omeometo	100
cedriclin	100

Submission for input B-small Rejected: Your output file contains 20 test cases instead of the expected 100.

Time Remaining: 32min 10sec Rank: 3308 Score: 0

[Contest scoreboard](#) | [Sign out](#)
 freybupt@gmail.com

Problem B. Kingdom Rush

Confused? Read the [quick-start guide](#).Small input
15 points [Redownload B-small.in](#)
Time Remaining: 3min 21sec
Input: B-small-attempt0.in.

your output file: Choose File question1.txt

 source Choose File ViewController.m
 code:
[Add another file](#)

Submit files

Large input
18 points
 You must solve the small input first.
 You will have 8 minutes to solve 1 input file. (Judged after contest.)

Problem

Ryan is playing Kingdom Rush, a single-player tower defense game developed by Ironhide Game Studio. In Kingdom Rush, players earn stars by completing levels, in a way described below. Having more stars makes the player more powerful; so while Ryan might not be able to complete level 2 right away, he might be able to complete it after earning stars from level 1.

The real game Kingdom Rush doesn't work in quite the same way as this problem. It isn't important to have played the game in order to solve the problem.

In this problem's version of Kingdom Rush, when a player completes a level, he or she is given a 1-star rating or a 2-star rating. That rating might allow the player to earn stars as follows:

- If the player has never completed the level before and completes it with a 1-star rating, that player earns 1 star.
- If the player has never completed the level before and completes it with a 2-star rating, that player earns 2 stars.
- If the player has only completed the level before with a 1-star rating and completes it this time with a 2-star rating, the player earns 1 more star.

Otherwise there is no way for a player to earn stars.

Ryan might not be able to complete every level right away. For each level, before he can complete it with a 1-star rating, he needs to have earned a certain number of stars; and he will need a larger or equal number of stars to complete that level with a 2-star rating.

For example, suppose there are two levels:

- Level 1 requires 0 stars to complete with a 1-star rating, and 1 star to complete

with a 2-star rating.

- Level 2 requires 0 stars to complete with a 1-star rating, and 2 stars to complete with a 2-star rating.

Here's a possible series of events for Ryan:

1. Ryan starts with 0 stars. He can choose to complete either level 1 or level 2 with a 1-star rating. He chooses to complete level 1 with a 1-star rating. Now he has 1 star.
2. Now Ryan can either complete level 2 with a 1-star rating, or level 1 with a 2-star rating. He chooses to complete level 1 with a 2-star rating. Now he has 2 stars.
3. Now Ryan can complete level 2 with a 2-star rating. He does that, and now he has 4 stars.
4. Now he is done, having completed all levels with 2-star ratings and earned 4 stars (2 per level). He has completed levels 3 times: level 1 twice, and level 2 once.

Ryan is great at tower defense games, but he needs some help to beat Kingdom Rush as quickly as possible. Your job is to figure out how many times he needs to complete levels in order to earn a 2-star rating on every level.

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each test case starts with a line containing a single integer **N**, indicating how many levels are in the game. **N** lines follow. The *i*th line contains two integers **a_i** and **b_i**: the number of stars it takes to earn a one-star rating or a two-star rating, respectively, on level *i*.

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 minimum number of times Ryan must complete levels in order to have earned a 2-star rating on every level. If it is impossible for Ryan to earn a 2-star rating on every level, *y* should instead be the string "Too Bad" (without the " characters, but with that exact capitalization). This indicates that Ryan is too bad at Kingdom Rush to finish the whole game.

Limits

$1 \leq T \leq 100$.
 $0 \leq a_i \leq b_i \leq 2001$.

Small dataset

$1 \leq N \leq 10$.

Large dataset

$1 \leq N \leq 1000$.

Sample

Input	Output
4	Case #1: 3
2	Case #2: 3
0 1	Case #3: Too Bad
0 2	Case #4: 6
3	
2 2	

```
0 0
4 4
1
1 1
5
0 5
0 1
1 1
4 7
5 6
```

Kingdom Rush was created by Ironhide Game Studio. Ironhide Game Studio does not endorse and has no involvement with Google Code Jam.

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