

Practice Contest

A. Old Magician

[B. Square Fields](#)[C. Cycles](#)[Questions asked](#) 4

Submissions

Old Magician

5pt Not attempted
203/214 users
correct (95%)10pt Not attempted
193/198 users
correct (97%)

Square Fields

10pt Not attempted
146/157 users
correct (93%)25pt Not attempted
107/128 users
correct (84%)

Cycles

15pt Not attempted
126/146 users
correct (86%)35pt Not attempted
20/41 users correct
(49%)

Top Scores

gawry	100
bmerry	100
Olexiy	100
ACRush	100
ardiankp	100
gepa	100
natalia	100
Alexus	100
almelv	100
OpenGL	100

Problem A. Old Magician

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
5 points

Solve A-small

Large input
10 points

Solve A-large

Problem

A magician does the following magic trick. He puts W white balls and B black balls in his hat and asks someone from the audience, say Bob, to remove pairs of balls in whatever order Bob would desire. After removing a pair of balls, Bob is asked to place a white ball back into the hat if they are the same color. Otherwise he is asked to place a black ball into the hat.

When Bob is left with only one ball in the hat, he asks the magician what color the last ball is. Needless to say, the magician can't see the order by which Bob does the replacements.

The problem is that the magician, like most magicians, is old and sometimes forgets how to do the trick. Being the kind person you are, you are going to help the magician.

For each pair of numbers (W, B) you are asked to output one of the following:

- "WHITE" - if the last ball in the hat will be white for sure.
- "BLACK" - if the last ball in the hat will be black for sure.
- "UNKNOWN" - if you can't be sure of the last ball's color.

Input

The first line of the input file contains the number of cases, N . N test cases follow.

Each case contains W and B on a line separated by a space.

Output

For each input case, you should output:

Case #X: Y

where X is the number of the test case and Y is either "WHITE", "BLACK" or "UNKNOWN" as explained above. (quotes for clarity)

Limits

$$0 < N \leq 1000$$
$$W + B > 0$$

Small dataset

$$0 \leq W \leq 1000$$
$$0 \leq B \leq 1000$$

Large dataset

$$0 \leq W \leq 10^9$$
$$0 \leq B \leq 10^9$$

Sample

Input	Output
2	Case #1: BLACK
3 1	Case #2: WHITE
3 6	

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