2F – Double dice

Antonia and David are playing a game. Each player starts with 100 points. The game uses standard six-sided dice and is played in rounds. During one round, each player rolls one die. The player with the lower roll loses the number of points shown on the higher die. If both players roll the same number, no points are lost by either player. Write a program to determine the final scores.

Input

The first line of each test case contains the integer n ($1 \leq n \leq 15$), which is the number of rounds that will be played. On each of the next n lines, will be two integers: the roll of Antonia for that round, followed by a space, followed by the roll of David for that round. Each roll will be an integer between 1 and 6 (inclusive).

Output

For each test case, the output will consist of two lines. On the first line, output the number of points that Antonia has after all rounds have been played. On the second line, output the number of points that David has after all rounds have been played.

Example

Input:
4
5 6
6 6
4 3
5 2

Output:
94
91