

Problem B

Premier League

Time limit: 1 second

Google Developer Super Cup (GDSC) is an annual football tournament organized by GDG on Campus PTIT. Due to the limited number of members, the tournament features only 3 participating teams. The teams compete in a round-robin format to determine the champion. The matches proceed as follows:

The first match between Team 1 and Team 2 ends with a score of $p : q$, the second match between Team 1 and Team 3 ends with a score of $r : s$, and the final match between Team 2 and Team 3 ends with a score of $u : v$.

According to FIFA's competition rules, there will be a fixed number of rounds. Each round consists of the aforementioned round-robin matches. In this format, a win earns a team 3 points, a draw earns 1 point, and a loss earns 0 points.

Please find out the total points of the 3 teams after a given number of rounds.

Input

The first line contains single integer N – is number of rounds.

Next N line, each line contains six non-negative integer p, q, r, s, u, v – the scores of the matches in the i -th round.

Output

Print single line contains three integers is the total points of Team 1, Team 2 and Team 3 after N rounds.

Constraints

$$1 \leq N \leq 1000.$$

$$0 \leq p, q, r, s, u, v \leq 20.$$

Sample Input 1

```
1
9 7 7 5 4 8
```

Sample Output 1

```
6 0 3
```

Sample Input 2

```
4
1 1 1 1 1 1
0 0 0 0 0 0
3 6 7 2 0 1
1 0 1 3 0 0
```

Sample Output 2

```
10 8 11
```

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