Best Students

Quiz marks are very important for good grades. In AIUB most of the courses have 3 quizzes in every term. Professor X is very serious about these quizzes. In his class there are N students and all of them have to attend these 3 quizzes to pass the semester. Each quiz contains 20 marks. Now after the mid-term Professor X. sums up each student's total quiz marks to find the best students in the class. As you are his ex-best student he asked your help to write a program to make this process faster.

You are given **N** students quiz marks. Calculate each student's total marks and find the highest mark among them. Also how many students got that mark.

Input

Input starts with an integer T (\leq 50), denoting the number of test cases.

Each case starts with an integer N ($1 \le N \le 100$) denoting the number of students. Next N lines contain 3 integers each **q1 q2 q3** ($0 \le q1, q2, q3 \le 20$). The **i**th line denotes the quiz marks of the **i**th student.

Output

For each test case print two integers **H** and **S**. **H** is the highest mark of the best student and **S** is the number of students who got H marks.

Example

Output:

40 1 21 2

P.S. Contest is going on. Problem will be moved to tutorial section after the contest.