Team Building

To make competitive programmers of BUBT, authority decide to take regular programming contest. To make this contest more competitive and fruitful there are some rules given to balance a team:
1. Only 1st , 2nd and 3rd year student can participate.
2. A team must have three members.
3. All the member cannot be from same year.
You need to find out the maximum number of teams can build up according to given rules.

Input

The first line of input contain an integer **T (1<=T<=10000)** test case. Next T line contains three positive integer **X, Y and Z (1<=X, Y, Z<=2*10^9)** separated by a space which denotes the number of participants from 1st, 2nd, and 3rd year student.

Output

You need to find out the maximum number of teams can build up according to given rules.

Example

Input
2
1 2 3
1 12 3

Output
2
4