A. Room Leader

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Let us remind you part of the rules of Codeforces. The given rules slightly simplified, use the problem statement as a formal document.

In the beginning of the round the contestants are divided into rooms. Each room contains exactly n participants. During the contest the participants are suggested to solve five problems, A, B, C, D and E. For each of these problem, depending on when the given problem was solved and whether it was solved at all, the participants receive some points. Besides, a contestant can perform hacks on other contestants. For each successful hack a contestant earns 100 points, for each unsuccessful hack a contestant loses 50 points. The number of points for every contestant is represented by the sum of points he has received from all his problems, including hacks.

You are suggested to determine the leader for some room; the leader is a participant who has maximum points.

Input

The first line contains an integer n, which is the number of contestants in the room ($1 \le n \le 50$). The next n lines contain the participants of a given room. The i-th line has the format of "$handle_i\ plus_i\ minus_i\ a_i\ b_i\ c_i\ d_i\ e_i$" — it is the handle of a contestant, the number of successful hacks, the number of unsuccessful hacks and the number of points he has received from problems A, B, C, D, E correspondingly. The handle of each participant consists of Latin letters, digits and underscores and has the length from 1 to 20 characters. There are the following limitations imposed upon the numbers:

- $0 \le plus_i, minus_i \le 50$;
- $150 \le a_i \le 500$ or $a_i = 0$, if problem A is not solved;
- $300 \le b_i \le 1000$ or $b_i = 0$, if problem B is not solved;
- $450 \le c_i \le 1500$ or $c_i = 0$, if problem C is not solved;
- $600 \le d_i \le 2000$ or $d_i = 0$, if problem D is not solved;
- $750 \le e_i \le 2500$ or $e_i = 0$, if problem E is not solved.

All the numbers are integer. All the participants have different handles. It is guaranteed that there is exactly one leader in the room (i.e. there are no two participants with the maximal number of points).

Output

Print on the single line the handle of the room leader.

Examples

input
5 Petr 3 1 490 920 1000 1200 0 tourist 2 0 490 950 1100 1400 0 Egor 7 0 480 900 950 0 1000 c00lH4x0R 0 10 150 0 0 0 0 some_participant 2 1 450 720 900 0 0

output
tourist

Note

The number of points that each participant from the example earns, are as follows:

- `Petr` — 3860

- `tourist` — 4140
- `Egor` — 4030
- `c00lH4x0R` — - 350
- `some_participant` — 2220

Thus, the leader of the room is `tourist`.