Appleby Contest '19 P1 - Darcy's Debilitating Demands

Time limit: 2.0s **Memory limit:** 256M

Darcy (a former taxi driver) now works at a factory crunching numbers for calculations. Despite his superior intellect and mathematical abilities, he still finds his job of calculating and computing very cumbersome and difficult.

Today he has to complete T tasks, each in the following format:

> Given four numbers N, A, B, C, find three numbers that sum up to N, with the following restrictions:
>
> - The first number must be an integer between 0 and A (inclusive)
> - The second number must be an integer between 0 and B (inclusive)
> - The third number must be an integer between 0 and C (inclusive)

Darcy has been feeling very pooped lately, can you help him find the three numbers for each task?

Constraints

$1 \leq T \leq 100$

$1 \leq N, A, B, C \leq 10^9$

Input Specification

The first line will contain the integer T, the number of tasks. T tasks will follow in the next $4T$ lines.

The first line of each task will contain the integer N.

The next three lines of each task will contain three integers: A, B, C.

Output Specification

For each task, output three integers that sum up to N and satisfy the above constraints, or `-1` if that is not possible.

If there are multiple solutions, output the one such that earlier numbers are minimized. Note that A is considered to be before B and C and B is considered to be before C.

Sample Input

```
1
100
100
53
49
```

Sample Output

```
0 51 49
```

Explanation

Note that there is only one task in the sample.

While `98 1 1` also sums up to 100, the earlier numbers should be as small as possible.