# What's For Dinner?

**Program Name: dinner.java**    **Input File: dinner.in**

Farmer Jane raises dogs and rabbits, feeding the latter carrots, and feeding the former the latter. She has noticed that each day, each rabbit will go one at a time to the carrot field and eat three carrots (or however many carrots are left if there are less than three). Any rabbit that did not eat three carrots will die of starvation. Then, each dog will go one at a time to the rabbit pen and eat two (or however many rabbits are left if there are less than two) of the live rabbits (they do not wish to eat dead, malnourished rabbits). Any dog that did not eat two rabbits will die of starvation. Farmer Jane is interested in knowing how many dogs, rabbits, and carrots she will have after a certain number of days given these conditions.

## Input
The first line of input will contain a single integer, $n$, indicating the number of data sets to process. The remainder of the input consists of those $n$ data sets.

Each data set will consist of a single line:
1. A line in the format "$a$ $b$ $c$ $d$", where $a$ (0-1000) is the starting number of dogs, $b$ (0-1000) is the starting number of rabbits, $c$ (0-1000) is the starting number of carrots, and $d$ (1-100) is the number of days to process.

## Output
For each data set in the input display the following:
1. A single line, "$x$ $y$ $z$" where, given the conditions described, $x$ is the number of dogs at the end of the $d$th day, $y$ is the number of rabbits at the end of the $d$th day, and $z$ is the number of carrots at the end of the $d$th day.

## Example Input File
```
3
10 10 6 1
10 100 900 4
1 2 2 1
```
## Example Output To Screen
```
1 0 0
10 20 60
0 0 0
```