C1. k-LCM (easy version)

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

It is the easy version of the problem. The only difference is that in this version $k = 3$.

You are given a positive integer n. Find k positive integers $a_1, a_2, \ldots, a_k$, such that:

- $a_1 + a_2 + \ldots + a_k = n$
- $LCM(a_1, a_2, \ldots, a_k) \leq \frac{n}{2}$

Here LCM is the least common multiple of numbers $a_1, a_2, \ldots, a_k$.

We can show that for given constraints the answer always exists.

Input

The first line contains a single integer t $(1 \leq t \leq 10^4)$ — the number of test cases.

The only line of each test case contains two integers n, k $(3 \leq n \leq 10^9, k = 3)$.

Output

For each test case print k positive integers $a_1, a_2, \ldots, a_k$, for which all conditions are satisfied.

Example

input Copy

```
3
3 3
8 3
14 3
```

output Copy

```
1 1 1
4 2 2
2 6 6
```