

# MARBLES

You have given  $n$  marbles .You divide those marbles into three person . There are some rules

1)Every times first person will get one marble and second person will get total number of first people marbles continue until divide possible .

2) Third person will get remaining marbles that divide impossible between first and second persons .

See the example for clear understand :

Suppose ,  $n=13$

First Person	Second Person
1	1
1	2
1	3

Here , remaining marbles is 4 that divide impossible because first person need 1 marble and second person need 4 marbles . Total need 5 marbles .

So first person = 3

Second person = 6

Third person = 4

## Input

Input starts with an integer  $T$  ( $\leq 1000000$ ), denoting the number of test cases.

Each case starts with a line containing an integer  $n$  ( $1 \leq n \leq 10^{17}$ ) denoting the total number of marbles .

## Output

For each case, print the every person's number of marbles (first person ,second person ,third person).

Sample input	Sample output
3 1	0 0 1
3	1 1 1
2	1 1 0