

Problem E Ice War I

Time limit: 3 seconds

Memory limit: 1024 megabytes

Problem Description

There is a card battle game called "Ice War." In this game, the player needs to accumulate MP (Mana Points) to launch attacks.

There are three types of attacks: Small Fire, Medium Fire and Large Fire, which cost 1 MP, 2 MP and 3 MP, respectively.

The MP-to-damage efficiency of these attacks is:

• Small Fire: 100% - 1 MP deals 1 damage

• Medium Fire: 150% - 2 MP deals 3 damage

• Large Fire: 200% - 3 MP deals 6 damage

Your task is to determine how to use a given amount of MP to maximize total damage dealt to the enemy.

Input Format

Your program should read from standard input. The input consists of T test cases. The first line contains a single integer T, the number of test cases.

Each of the following T lines contains one integer $MP(0 \le MP \le 100,000)$, representing the amount of Mana Points available in that test case.

Output Format

For each test case, output two lines:

- The first line should show the number of times each type of attack is used to maximize total damage. The counts must be listed in the following order: *Small Fire, Medium Fire, then Large Fire*, separated by a space.
- The second line should display the **maximum total damage** that can be dealt with the given MP.

Technical Specification

- $1 \le T \le 100$
- $0 \le MP \le 100,000$



Sample Input 1

sample 1	·put ·
4	
2	
5	
10	
200	

Sample Output 1

0	1	0					
3							
0	1	1					
9							
1	0	3					
19)						
0	1	66					
39	9						