Sum Kind of Problem

Problem ID: sumkindofprobl
CPU Time limit: 1 second
Memory limit: 1024 MB
Difficulty: 1.5

Source: 2015 Greater New Yo
Region ACM Regional Contest

For this problem you will compute various running sums of values for positive integers.

Input

The first line of input contains a single integer P, ($1 \leq P \leq 10\,000$), which is the number of data sets that follow. Each data set should be processed identically and independently. Each data set consists of a single line of input. It contains the data set number, K, followed by an integer N, ($1 \leq N \leq 10\,000$).

Output

For each data set there is one line of output. The single output line consists of the data set number, K, followed by a single space followed by three space separated integers S_1, S_2 and S_3 such that:

- S_1 = The sum of the first N positive integers.
- S_2 = The sum of the first N odd integers.
- S_3 = The sum of the first N even integers.

Sample Input 1

```
3
1 1
2 10
3 1001
```

Sample Output 1

```
1 1 1 2
2 55 100 110
3 501501 1002001 1003002
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