Theorem

For any two integers x and k there exists two more integers p and q such that:

$$x = p\left\lfloor \frac{x}{k} \right\rfloor + q\left\lceil \frac{x}{k} \right\rceil$$

It's a fairly easy task to prove this theorem, so we'd not ask you to do that. We'd ask for something even easier! Given the values of x and k, you'd only need to find integers p and q that satisfies the given equation.

Input

The first line of the input contains an integer, T ($1 \leq T \leq 1000$) that gives you the number of test cases. In each of the following T lines youd be given two positive integers x and k. You can safely assume that x and k will always be less than 10^8.

Output

For each of the test cases print two integers: p and q in one line. These two integers are to be separated by a single space. If there are multiple pairs of p and q that satisfy the equation, any one would do. But to help us keep our task simple, please make sure that the values,

$$p\left\lfloor \frac{x}{k} \right\rfloor \qquad \text{and} \qquad q\left\lceil \frac{x}{k} \right\rceil$$

fit in a 64 bit signed integer.

Sample Input

```
3
5 2
40 2
24444 6
```

Sample Output

```
1 1
1 1
0 6
```