Project Euler #71: Ordered fractions

Consider the fraction, $\frac{a}{b}$, where a and b are positive integers. If $a \lt b$ and $GCD(a,b)=1$, it is called a reduced proper fraction.

If we list the set of reduced proper fractions for $d \le 8$, (where d is the denominator) in ascending order of size, we get:

$$\frac{1}{8}, \frac{1}{7}, \frac{1}{6}, \frac{1}{5}, \frac{1}{4}, \frac{2}{7}, \frac{1}{3}, \frac{3}{8}, \frac{\textbf{2}}{\textbf{5}}, \frac{3}{7}, \frac{1}{2}, \frac{4}{7}, \frac{3}{5}, \frac{5}{8}, \frac{2}{3}, \frac{5}{7}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \frac{7}{8}$$

It can be seen that $\frac{2}{5}$ is the fraction immediately to the left of $\frac{3}{7}$.

By listing the set of reduced proper fractions for $d \le N$ in ascending order of size, find the numerator and denominator of the fraction immediately to the left of $\frac{a}{b}$.

Input Format
First line of input contains an integer T, number of test cases.
Next T lines contain a b N separated by space.

Output Format
Print the numerator and denominator separated by a space corresponding to each test case on a new line.

Constraints
$1 \le T \le 100$
$1 \le a<b <= 10^9$
$GCD(a,b) = 1$
$b < N <= 10^{15}$

Sample Input

```
5
3 7 8
3 5 8
4 5 8
6 7 8
1 5 8
```

Sample Output

```
2 5
4 7
3 4
5 6
1 6
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