Splitting some coins   P12234_en

You have to split c coins among n people. You know that each individual will spend all the coins that he or she will receive by buying as many books as possible, each of them by a price of p coins. The remaining coins of each person will be lost. You want to know the minimum number of books that can be bought, and also the maximum.

For instance, with $n = 2$, $c = 16$ and $p = 10$, by giving 8 coins to each person, they can buy nothing. But dividing the coins in two groups of 12 and 4, the first person can buy one book. In this case the minimum is 0 and the maximum is 1.

Input

Input consists of several cases, each with n, c and p. All numbers are integers. You can assume that n and p are between 1 and 3000, and that c is between 1 and 10^9.

Output

For every case, print the minimum and the maximum number of books that can be bought.

Sample input 1

```
2 16 10
5 1000 100
1 2 3
```

Sample output 1

```
0 1
6 10
0 0
```

Problem information

Author: Salvador Roura

Generation: 2026-01-25T10:01:43.045Z