

# Chocolate Feast



## Problem Statement

Little Bob loves chocolate, and he goes to a store with  $\$N$  in his pocket. The price of each chocolate is  $\$C$ . The store offers a discount: for every  $M$  wrappers he gives to the store, he gets one chocolate for free. How many chocolates does Bob get to eat?

## Input Format:

The first line contains the number of test cases,  $T$ .

$T$  lines follow, each of which contains three integers,  $N$ ,  $C$ , and  $M$ .

## Output Format:

Print the total number of chocolates Bob eats.

## Constraints:

$$1 \leq T \leq 1000$$

$$2 \leq N \leq 10^5$$

$$1 \leq C \leq N$$

$$2 \leq M \leq N$$

## Sample input

```
3
10 2 5
12 4 4
6 2 2
```

## Sample Output

```
6
3
5
```

## Explanation

In the first case, he can buy 5 chocolates with  $\$10$  and exchange the 5 wrappers to get one more chocolate. Thus, the total number of chocolates is 6.

In the second case, he can buy 3 chocolates for  $\$12$ . However, it takes 4 wrappers to get one more chocolate. He can't avail the offer and hence the total number of chocolates remains 3.

In the third case, he can buy 3 chocolates for  $\$6$ . Now he can exchange 2 of the 3 wrappers and get 1 additional piece of chocolate. Now he can use his 1 unused wrapper and the 1 wrapper of the new piece of chocolate to get one more piece of chocolate. So the total is 5.