Chocolate Feast



Little Bob loves chocolates, and 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(<=1000).

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

Output Format:

Print the total number of chocolates Bob eats.

Constraints:

 $\begin{array}{l} 2 \leq N \leq 10^5 \\ 1 \leq C \leq N \end{array}$

 $2 \leq M \leq N$

Sample input

Sample Output

3 5

6

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 give 2 of this 3 wrappers and get 1 chocolate. Again, he can use his 1 unused wrapper and 1 wrapper of new chocolate to get one more chocolate. So the total is 5.