

Problem G

Cookie Monster (Easy)

Everyone needs hobbies, and Christian is no exception. He is out of this world fond of cookies. Where there are cookies, you'll find Christian. Sadly, he's not too good at keeping track of his supplies. He needs to eat at least one cookie every day, and as long as there are enough left, he will eat C of them. Given that he has N cookies left, for how many days will he eat at least one cookie?



Input specifications

The first line of input contains a single number T , the number of test cases to follow. Each test case consists of one line containing two numbers, N and C , the total number of cookies he has and the number he eats every day.

Output specifications

For each test case, output one line containing a single number, the amount of days where Christian still has cookies to eat.

Notes and Constraints

- $0 < T \leq 100$
- $0 < N \leq 1000000000$
- $0 < C \leq 5000$

Sample input

```
2
6 2
10 3
```

Output for sample input

```
3
4
```