

Chef is currently standing at stair 0 and he wants to reach **exactly** stair numbered X .

Chef can climb the following in one move.

- either Y steps
- or 1 step

Find the **minimum** number of moves required by him to reach **exactly** the stair numbered X .

Input Format

- The first line of input will contain a single integer T , denoting the number of test cases.
- Each test case consists of a single line of input containing two space separated integers X and Y denoting the number of stair Chef wants to reach and the number of stairs he can climb in one move.

Output Format

For each test case, output the **minimum** number of moves required by him to reach **exactly** the stair numbered X .

Sample 1:

Input	Output
4	2
4 2	4
8 3	3
3 4	2
2 1	

Explanation:

Test case 1: Chef can make 2 moves and climb 2 steps in each move to reach stair numbered 4.

Test case 2: Chef can make a minimum of 4 moves. He can climb 3 steps in 2 of those moves and 1 step each in remaining 2 moves to reach stair numbered 8.

Test case 3: Chef can make 3 moves and climb 1 step in each move to reach stair numbered 3.

How do we plan to implement our logic / observations?

- If X is divisible by Y , then count of moves is $(X // Y)$
- If X is not divisible by Y , then count of moves is $(X // Y) + \text{remainder of } X \text{ divided by } Y$

Note:

- `//` has been used for division since it returns the **rounded down** integer.
- **Observation:** Interestingly even when X is divisible by Y , then count of moves is $(X // Y) + \text{remainder of } X \text{ divided by } Y$
 - When X is divisible by Y , remainder of X divided by Y is 0

Code out the sub-problem in the IDE to continue!

```
1 # Update the '_' in the code below to solve this problem
2
3 X = 19
4 Y = 3
5 if X%Y == 0:
6     print("Count of moves is",X//Y)
7 else:
8     print("Count of moves is",(X//Y) + (X%Y))
9
10 X = 20
11 Y = 3
12 if X%Y == 0:
13     print("Count of moves is",X//Y)
14 else:
15     print("Count of moves is",(X//Y) + (X%Y))
16
```

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```
1 # Update the code below to solve the problem
2
3 t = int(input())
4 for i in range(t):
5     x, y = map(int,input().split())
6     if x%y == 0:
7         print(x//y)
8     elif x%y != 0:
9         print((x//y) + (x%y))
```

Test against Custom Input

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4 2

8 3

3 4