

A. Divisibility Problem

time limit per test: 1 second  
memory limit per test: 256 megabytes

You are given two positive integers  $a$  and  $b$ . In one move you can increase  $a$  by 1 (replace  $a$  with  $a + 1$ ). Your task is to find the minimum number of moves you need to do in order to make  $a$  divisible by  $b$ . It is possible, that you have to make 0 moves, as  $a$  is already divisible by  $b$ . You have to answer  $t$  independent test cases.

Input

The first line of the input contains one integer  $t$  ( $1 \leq t \leq 10^4$ ) — the number of test cases. Then  $t$  test cases follow.

The only line of the test case contains two integers  $a$  and  $b$  ( $1 \leq a, b \leq 10^9$ ).

Output

For each test case print the answer — the minimum number of moves you need to do in order to make  $a$  divisible by  $b$ .

Example

input	Copy
5 10 4 13 9 100 13 123 456 92 46	
output	Copy
2 5 4 333 0	

Codeforces Round 629 (Div. 3)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: Python 3.13.2  
Almost always, if you send a solution on PyPy, it works much faster

Choose file: 选择文件 未选择文件

Submit

→ Last submissions

Submission	Time	Verdict
<a href="#">339244447</a>	Sep/18/2025 13:57	Accepted
<a href="#">339244336</a>	Sep/18/2025 13:56	Wrong answer on test 1