

时间限制：C/C++/Rust/Pascal 1秒，其他语言2秒
空间限制：C/C++/Rust/Pascal 512 M，其他语言1024 M
64bit IO Format: %lld

题目描述

Yuki and Ena are playing a turn-based poker game.
Initially, Yuki has x jetton, and Ena has y jetton. The winner of each round is determined as follows:

- If Yuki has a different number of jetton from Ena, the player with fewer jetton is the winner;
- If Yuki has the same number of jetton as Ena, Yuki is the winner.

The other player must pay the winner an amount of jetton equal to the number of jetton the winner had.

When either player's number of jetton becomes 0, the game ends immediately. You are asked to determine whether the game will end in a finite number of rounds. Specifically, if it does, you also need to compute the number of rounds from start to finish.

输入描述:

Each test contains multiple test cases. The first line of input contains a single integer t ($1 \leq t \leq 10^5$) – the number of test cases. The description of the test cases follows.

The first and only line of input of each test case contains two integers x and y ($1 \leq x, y \leq 10^9$), denoting the initial jetton that Yuki and Ena initially possess, respectively.

输出描述:

For each test case, output a single line containing an integer: if the game ends in a finite number of rounds, output an integer representing the number of rounds; otherwise, output -1 .

示例1

输入

复制

5
100 100
30 90
15 55
11 4514
2 126

C++ (clang++18)

1

ACM模
请通过
入输出
出描述