

Time Left

<C*deVita/>
the TCS Coding Contest
04 24 27
 hr min sec
Coding Arena

A B C D E F G H

Rules & Regulations**Problem : Cats And Dogs****Launch Code Editor**

Cats & Dogs have become friends now. They are going to a picnic and they decided to sit together in groups to have their lunch.

There are N Cats & M Dogs. They can form any number of groups to sit together, subject to rules below.

Rules:

1. They will sit in a straight line
2. A Cat cannot sit beside another Cat or alone
3. A Dog cannot sit beside another Dog or alone

You need to find minimum number of groups they need to form. If no group can be formed then print -1.

Input Format:

First line of input will be a number of Test Cases T

Next T lines of input will contains two numbers N and M, delimited by space

Output Format:

Print minimum number of groups to be formed for each Test Case in new line

OR

Print -1 if no group can be formed

Constraints:

1. $0 < T \leq 10^6$
2. $0 < N, M \leq 10^{18}$

Example:

| Example Number | Sample Input | Sample Output |
|----------------|------------------------|---------------|
| 1 | 2 5 5 1 3 | 1 -1 |
| 2 | 3 7 8 3 5 6 7 | 1 2 1 |

Note:

Please do not use package and namespace in your code. For object oriented languages your code should be written in one class.

Note:

Participants submitting solutions in C language should not use functions from `<conio.h>` / `<process.h>` as these files do not exist in gcc

Note:

For C and C++, return type of `main()` function should be `int`.

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Submit Answer

☐ I, **SOUPTIK SARKAR** confirm that the answer submitted is my own.

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