

## Coding Arena



Time Left

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### Problem : Cats And Dogs

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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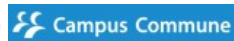
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