You are a person who is always fond of eating candies. Your friend gave you a candy of length *N*, to eat during the break period of your school.

You start eating this candy from one of the ends. But as it is not your candy, your friend told you to eat **exactly *K* unit** length of candy during each bite. You will stop eating if the candy's length becomes 00. This means that you have eaten the entire candy.

If at some point of time, the candy's length is positive, but less than *K*, you *cannot* take a bite thereafter.

Can you eat the complete candy? If yes, print the number bites it will take, else print −1−1.

Input Format

- First line will contain *T*, number of testcases. Then the testcases follow.
- Each testcase contains of two spaced integers *N*, *K*.

Output Format

For each testcase, print the minimum number of bites you need to eat the complete candy. Print −1−1 if it is not possible to do so.

Sample Input

3

3 1

3 2

0 3

Sample Output

3

-1

0

C Solution

```
#include <stdio.h>


int main(void) {
        int n;
        scanf("%d",&n);
```

```
        for(int i=0;i<n;i++){
            int length,per;
            scanf("%d%d",&length,&per);
      if(length%per==0){
        printf("%d\n",length/per);
      }
      else{
        printf("-1\n");
      }
          }
          return 0;
}
```

C++ Solution

```
#include <iostream>
using namespace std;

int main() {
          int t;
          std::cin >> t;
          while(t>0){
            int n,k;
            std::cin >> n >> k;
            if(n%k==0)
              cout<<n/k<<endl;
            else
              cout<<"-1"<<endl;

            t--;
```

```
    }
    return 0;
}
```

Java

```
import java.util.*;
import java.lang.*;
import java.io.*;
class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
                        Scanner sc = new Scanner(System.in);
        int t = sc.nextInt();
        for(int i=0;i<t;i++)
        {
          int n = sc.nextInt();
          int k = sc.nextInt();
          if(n%k==0)
            System.out.println(n/k);
          else
            System.out.println("-1");
        }
    }
}
```

Python

```
for _ in range(int(input())):
    x,y = list(map(int,input().split()))
    if x % y == 0:
        print(x//y)
    else:
        print("-1")
```