

Ready for PAR

Time Limit	1s
Memory Limit	64MB

Description

Irfan is a first-year student in School of Electric Engineering and Informatics. He heard that the first-year student will learn PAR (*Pengantar Analisis Rangkaian*), which is very difficult for most of students. From what he heard from his senior, only 15% that passed the exam. Rest of them took the remedial test, took the *semester pendek*, or took the class again next year.

Because he is very ambitious and doesn't want the PAR disturbs his CP routine, he start learning PAR from first semester. Now he is learning calculation of resistors. Resistors can be put in sequence or parallel to others.

Because the writer of this problem is lazy to explain how to calculate resistor circuit, please google it yourself.

Now he wonders. He wants to the overall resistance to equal a/b . But he only has resistor with resistance 1Ω . He also wants to minimize the usage of resistors. Calculate minimum number of resistor needed to create a circuit with resistance a/b

Input Format

The first and only line consists of two integers, a and b .

Output Format

Output N lines.

Constraint

- $1 \leq a, b \leq 10^{18}$

Sample Input 1

1 1

Sample Output 1

1

Sample Input 2

3 5

Sample Output 2

4

Explanation

In the second example, we can make this configuration:

