D. Unusual Sequences

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input

output: standard output

Count the number of distinct sequences $a_1, a_2, ..., a_n$ ($1 \le a_i$) consisting of positive integers such that $gcd(a_1, a_2, ..., a_n) = x$ and . As this number could be large, print the answer modulo $10^9 + 7$.

gcd here means the greatest common divisor.

Input

The only line contains two positive integers x and y ($1 \le x, y \le 10^9$).

Output

Print the number of such sequences modulo $10^9 + 7$.

Examples

input	
3 9	
output	
3	

input			
5 8			
output			
Θ			

Note

There are three suitable sequences in the first test: (3, 3, 3), (3, 6), (6, 3).

There are no suitable sequences in the second test.