# GLCCDM

In the lecture, we gave a efficient method called the *Euclidean algorithm*, which calculates the greatest common divisor of two positive integers in $O(\log n)$ time. Write a program which takes two positive integers, and returns their greatest common divisor and lowest common multiple.

## Input

Your input consists of an arbitrary number of lines, but no more than 2,000.
Each line contains two positive integers $a$ $(1 \leq a \leq 10^9)$ and $b$ $(1 \leq b \leq 10^9)$.
The end of input is indicated by a line containing only the value $-1$.

## Output

For each input line, print the greatest common divisor of $a$ and $b$, and the least common multiple of $a$ and $b$, separated by a space.

## Example

| Standard input | Standard output |
|---|---|
| 24 18<br>6 80<br>25 36<br>36 12<br>75 51<br>93 31<br>199801308 737272212<br>-1 | 6 72<br>2 240<br>1 900<br>12 36<br>3 1275<br>31 93<br>538548 273527990652 |

## Time Limit

1 second.