

Greatest Common Divisor

Time Limit: 1 Second
Memory Limit: 256 MB

Given two integers a and b , find the greatest common divisor of a and b . You will need to answer multiple queries.

Input

The first line contains a single integer q ($1 \leq q \leq 5 \cdot 10^5$), the number of queries.

The next q lines each contains two integers a, b ($0 \leq a, b \leq 10^9$). You will need to find the GCD of the pair of numbers on each line. It is guaranteed that a and b will not both equal to 0.

Output

Output q lines, corresponding to the GCD of each query.

Sample Inputs

```
5
72 120
1 1000000000
4 0
5 5
89 55
```

Sample Outputs

```
24
1
4
5
1
```
