

Number of common divisors

You will be given T ($T \leq 10^6$) pair of numbers. All you have to tell is the number of common divisors between two numbers in each pair.

Input

First line of input: T (Number of test cases)

In next T lines, each have one pair $A B$ ($0 < A, B \leq 10^6$)

Output

One integer describing number of common divisors between two numbers.

Example

Input:

```
3
100000 100000
12 24
747794 238336
```

Output:

```
36
6
2
```