A. Find Divisible

You are given a range of positive integers from l to r.

Find such a pair of integers (x,y) that $l\leq x,y\leq r$, $x\neq y$ and x divides y.

If there are multiple answers, print any of them.

You are also asked to answer T independent queries.

Input

The first line contains a single integer T ($1\leq T\leq 1000$) — the number of queries.

Each of the next T lines contains two integers l and r ($1\leq l\leq r\leq 998244353$) — inclusive borders of the range.

It is guaranteed that testset only includes queries, which have at least one suitable pair.

Output

Print T lines, each line should contain the answer — two integers x and y such that $l\leq x,y\leq r$, $x\neq y$ and x divides y. The answer in the i-th line should correspond to the i-th query from the input.

If there are multiple answers, print any of them.

Example

input

Copy

```
3
1 10
3 14
1 10
```

output

Copy

```
1 7
3 9
5 10
```