GCD and LCM Problem Code: FLOW016

Two integers ${\bf A}$ and ${\bf B}$ are the inputs. Write a program to find GCD and LCM of A and B.

Input

The first line contains an integer **T**, total number of testcases. Then follow **T** lines, each line contains an integer **A** and **B**.

Output

Display the GCD and LCM of ${\bf A}$ and ${\bf B}$ separated by space respectively.

Constraints

- $1 \le T \le 1000$
- $1 \le A,B \le 1000000$

Example

Input

3

120 11

10213 312

10 3

Output

- 1 1320
- 1 3186456
- 1 30