**Contest Code:** SNCK1A21 **Problem Code:** MINLCM1

**Read problem statements in Mandarin Chinese, Russian, and Vietnamese as well.**

You are given two positive integers $X$ and $K$.

You have to output the minimum and maximum value of $LCM(i,j)$ where $X \leq i < j \leq X \cdot K$.

We define $LCM(i,j)$ for two positive integers $i$ and $j$ as the minimum positive integer $y$ such that both $i$ and $j$ divide $y$ without remainder.

### Input Format

- First line will contain $T$, number of testcases. Then the testcases follow.
- Each testcase contains of a single line of input, two space separated integers $X$ and $K$.

### Output Format

For each testcase, output two space separated integers - the minimum and maximum possible value respectively of $LCM(i,j)$ where $X \leq i < j \leq X \cdot K$.

### Constraints

- $1 \leq T \leq 10^5$
- $1 \leq X \leq 10^8$
- $2 \leq K \leq 10^8$
- It is guaranteed that, for each test case, $X \cdot K \leq 10^9$

### Sample Input 1

```
2
4 3
2 3
```

### Sample Output 1

```
8 132
4 30
```

### Explanation

**Test Case $1$:** We want to find the minimum and maximum value of $LCM(i,j)$ for $4 \leq i < j \leq 12$. It is easy to verify that the $LCM(4,8) = 8$ is the minimum possible value whereas $LCM(11,12) = 132$ is the maximum value.

**Test Case $2$:** We want to find the minimum and maximum value of $LCM(i,j)$ for $2 \leq i < j \leq 6$. The maximum value is obtained for the pair $(5,6)$ whereas the minimum is obtained for the pair $(2,4)$.

C (Gcc 6.3) Code gets autosaved every second

```c
#include <stdio.h>

int main(void) {
    int n,i,a,b;
    scanf("%d",&n);
    for(i=0;i<n;i++)
    {
```

```
        scanf("%d %d",&a,&b);
        printf("%d %d\n",2*a,(a*b*(a*b-1)));
    }
    return 0;
}
```

0:0

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Custom Input

```
2
4 3
2 3
```

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