

Easy GCD

We call a sequence of n non-negative integers \mathbf{A} , awesome if there exists some positive integers $\mathbf{x} > 1$ such that each element \mathbf{A}_i in \mathbf{A} (where $0 \leq i < n$) is evenly divisible by \mathbf{x} . Recall that \mathbf{a} evenly divides \mathbf{b} if there exists some integers \mathbf{c} such that $\mathbf{b} = \mathbf{a} * \mathbf{c}$.

Given an awesome sequence, \mathbf{A} and a positive integer \mathbf{k} , find and print the maximum integer \mathbf{L} , which satisfies the following conditions:

1. $0 \leq \mathbf{L} \leq \mathbf{K}$
2. $\mathbf{A} \cup \{\mathbf{L}\}$ is also awesome. (\mathbf{U} is union operator)

Input:

The first line contains the integer \mathbf{t} denoting the number of test cases. The next line contains two space-separated positive integers, \mathbf{n} (length of the sequence \mathbf{A}) and \mathbf{k} (the upper bound of answer \mathbf{L}).

The third line contains \mathbf{n} space separated positive integers describing the elements of \mathbf{A} .

Output:

For each test case, Print the value of \mathbf{L} in a single line (where \mathbf{L} is the maximum integer $\leq k$ and $\mathbf{A} \cup \{\mathbf{L}\}$ is also awesome). As 0 is evenly divisible by any $\mathbf{x} > 1$, there will always be an answer.

Constraints:

$$1 \leq t \leq 12$$

$$1 \leq n \leq 100000$$

$$1 \leq k \leq 1000000000$$

$$1 \leq A_i \leq 1000000000$$

Sample Input	Sample Output
2	4
3 5	0
2 6 4	

15

7