Product of numbers P44833_en

Given a set of n natural numbers, choose any subset S such that $\prod_{x \in S} \equiv 1 \pmod{n}$.

Input

Input consists of several cases. Every case begins with n, followed by n different numbers, all between 1 and 10^9. Assume $2 \leq n \leq 10^5$.

It is easy to see that no number x where $\gcd(x, n) \neq 1$ could ever be part of any solution. Consequently, every given x is such that $\gcd(x, n) = 1$.

Output

Print one line for every case, with a non-empty subset of the given numbers such that the product of its elements is congruent with 1 modulo n. Each number can be used at most once. Print the numbers in any order, and separated by one space. If there are several solutions, print any of them. If there is no solution, print "`Maths are difficult`".

Sample input 1

```
5  9 8 2 6 4
5  9 8 2 6 4
2  1 3
4  10000003 10000007 10000011 10000015
5  23 18 3 8 13
```

Sample output 1

```
8 2
9 8 6 4 2
3
10000003 10000007
23 18 3 8
```

Problem information

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