# G. The Real Folk Blues I

*“I'm not going there to die. I'm going to find out if I'm really alive.''* --- Spike Spiegel

This is the **easy version** of the problem. In this version, you can make at most **160 queries.**

Vicious has gone underground. The Red Dragon Syndicate is protecting his location, encrypted behind a complex mathematical signal. Spike Spiegel has intercepted the Syndicate's communication line. However, the data is heavily obscured. Spike cannot read Vicious's coordinates directly. He can only ping the network with an offset, and the system returns the “radical signature” of the location.

Spike knows Vicious is hiding at a coordinate $n$ $(1 \le n \le 2 \times 10^5)$ To find him, Spike can choose a non-negative integer $x$ $(0 \le x \le 2 \times 10^5)$ and hack the system with a query. The Syndicate's server will reply with the **set of prime divisors** of the number $n + x$.

For example, if Vicious is at $n = 12$ and Spike hacks the system with offset $x = 16$, the system replies with $\{2, 7\}$ because $16 + 12 = 28 = 2^2 \times 7$.

Spike needs to pinpoint the exact value of $n$ to settle the score. But he cannot make more than **160 queries** — otherwise, Vicious will detect Spike’s presence and kill him.

Can you help Spike locate Vicious?

## Interaction Protocol

To make a query, print a line in the format: `? x`

After printing a query, do not forget to output the end of line and flush the output.

After each query, read an integer $k$, the number of distinct prime divisor of $n + x$ followed by the $k$ prime divisors $p_1, p_2, \ldots p_k$.

When you have determined the hidden number $n$, print the answer in the format: `! n`
This output does not count towards the query limit. After printing the answer, your program must terminate immediately.

## Input

The input consists of the responses to your queries. After each query `? x` , you will recieve:

- an integer $k$: the number of distinct prime divisor of $n + x$
- followed by $k$ space separated integer : the distinct prime factors of $n + x$

## Output

To ask a query, output "`? x`" (without quotes), where $0 \leq x \leq 2 \times 10^5$ , followed by a flush operation. When you determine the value of $n$, output "`! n`" (without quotes), where $1 \leq n \leq 2 \times 10^5$ and flush the output.

To flush the output buffer, use:

- `fflush(stdout)` or `cout << endl` in C++.
- `System.out.flush()` in Java.
- `sys.stdout.flush()` in Python.

### Example Interaction

| Input | Output |
|---|---|
| | ? 0 |
| 3 2 3 5 | |
| | ? 7 |
| 1 37 | |
| | ! 30 |

In the example above, the hidden number is $n = 30$.

- The first query is "`? 0`". The system calculates $30 + 0 = 30$. The prime factors of 30 are 2, 3, and 5. The input receives the count `3` followed by the primes `2 3 5`.
- The second query is "`? 7`". The system calculates $30 + 7 = 37$, which is prime. The input receives count `1` followed by the prime `37`.
- The user deduces $n = 30$ and prints "`! 30`".