

Sequence Equation



You are given a sequence of n integers, $p(1), p(2), \dots, p(n)$. Each element in the sequence is distinct and satisfies $1 \leq p(x) \leq n$. For *each* x where $1 \leq x \leq n$, find any integer y such that $p(p(y)) \equiv x$ and print the value of y on a new line.

Input Format

The first line contains an integer, n , denoting the number of elements in the sequence.
The second line contains n space-separated integers denoting the respective values of $p(1), p(2), \dots, p(n)$.

Constraints

- $1 \leq n \leq 50$
- $1 \leq p(x) \leq 50$, where $1 \leq x \leq n$.
- Each element in the sequence is distinct.

Output Format

For each x from 1 to n , print an integer denoting any valid y satisfying the equation $p(p(y)) \equiv x$ on a new line.

Sample Input 0

```
3
2 3 1
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Sample Output 0

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2
3
1
```

Explanation 0

Given the values of $p(1) = 2$, $p(2) = 3$, and $p(3) = 1$, we calculate and print the following values for each x from 1 to n :

- $x = 1 \equiv p(3) = p(p(2)) = p(p(y))$, so we print the value of $y = 2$ on a new line.
- $x = 2 \equiv p(1) = p(p(3)) = p(p(y))$, so we print the value of $y = 3$ on a new line.
- $x = 3 \equiv p(2) = p(p(1)) = p(p(y))$, so we print the value of $y = 1$ on a new line.