



Inverse of an Array in Java

Problem Statement

Write a Java program that takes an array of distinct integers from the user, computes its **inverse**

The **inverse** of an array means that for each index `i` in the original array, the value at `arr[i]`

Input Format

1. The first line contains an integer **n** – the number of elements in the array.
2. The second line contains **n** space-separated integers, representing a **permutation** of numbers from 0 to n-1.

Output Format

- Print the inverse of the given array as space-separated integers on a single line.

Example

Input:

5

4 0 2 3 1

Output:

1 4 2 3 0

Constraints

- $1 \leq n \leq 10^6$
- The array must be a **valid permutation** of numbers from **0** to **n-1** (i.e., all numbers in this range appear exactly once).

Requirements

- Implement the function with the following signature:

```
```java
public static int[] inverse(int[] arr)
```

# Sample Test Case

## Input:

```
4
2 3 1 0
```

## Output:

```
3 2 0 1
```

## Hints

- Create a new array `inv` of the same length as the input array.
- Iterate over the input array and place each index at the position given by its value.
- Print the final inverted array.