1-Finding Duplicates-O(n^2) Time Complexity,O(1) Space Complexity

Started on	Sunday, 12 October 2025, 7:07 PM
State	Finished
Completed on	Sunday, 12 October 2025, 7:08 PM
Time taken	49 secs
Marks	1.00/1.00
Grade	**4.00** out of 4.00 (**100**%)

Question 1 Correct Mark 1.00 out of 1.00 Flag question

Find Duplicate in Array.

Given a read only array of n integers between 1 and n, find one number that repeats.

Input Format:

First Line - Number of elements

n Lines - n Elements

Output Format:

Element x - That is repeated

For example:

Input	Result
5	1

1 1 2 3 4	

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    int arr[n];
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    int slow = arr[0];
    int fast = arr[0];

    do {
        slow = arr[slow];
        fast = arr[arr[fast]];
    } while (slow != fast);

    slow = arr[0];
    while (slow != fast) {
        slow = arr[slow];
        fast = arr[fast];
    }

    printf("%d\n", slow);
    return 0;
}
```

	Input	Expected	Got	
✔	11 10 9 7 6 5 1 2 3 8 4 7	7	7	✔
✔	5 1 2 3 4 4	4	4	✔
✔	5 1 1 2 3 4	1	1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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