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|              |                                 |
|--------------|---------------------------------|
| Started on   | Friday, 16 August 2024, 1:44 PM |
| State        | Finished                        |
| Completed on | Friday, 16 August 2024, 2:27 PM |
| Time taken   | 43 mins 4 secs                  |
| Marks        | 1.00/1.00                       |
| Grade        | 4.00 out of 4.00 (100%)         |

## Question 1

Correct

Mark 1.00 out of 1.00

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<br>1 1 2 3 4 | 1      |

**Answer:** (penalty regime: 0 %)

```

1  #include<stdio.h>
2  int main()
3  {
4      int n,r=0,s=0;
5      scanf("%d",&n);
6      int a[n];
7      for(int i=0;i<n;i++)
8          scanf("%d",&a[i]);
9      s=(n*(n-1))/2;
10     for(int i=0;i<n;i++)
11     {
12         r=r+a[i];
13     }
14     printf("%d",r-s);
15 }
```

|   | Input                        | Expected | Got |   |
|---|------------------------------|----------|-----|---|
| ✓ | 11<br>10 9 7 6 5 1 2 3 8 4 7 | 7        | 7   | ✓ |
| ✓ | 5<br>1 2 3 4 4               | 4        | 4   | ✓ |
| ✓ | 5<br>1 1 2 3 4               | 1        | 1   | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ 1-Finding Duplicates- \$O\(n^2\)\$  Time Complexity, \$O\(1\)\$  Space Complexity](#)

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[3-Print Intersection of 2 sorted arrays- \$O\(m\*n\)\$ Time Complexity, \$O\(1\)\$  Space Complexity ▶](#)