

H2

Started on Wednesday, 8 October 2025, 8:44 AM

State Finished

Completed on Wednesday, 8 October 2025, 9:03 AM

Time taken 19 mins 18 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	1
1 1 2 3 4	

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 #include <stdlib.h>
3 int main() {
4     int n;
5     scanf("%d", &n);
6     int a[n];
7     for (int i = 0; i < n; i++) {
8         scanf("%d", &a[i]);
9     }
10    for (int i = 0; i < n; i++) {
11        int val = abs(a[i]);
12        if (a[val - 1] < 0) {
13            printf("%d\n", val);
14            break;
15        }
16        a[val - 1] = -a[val - 1];
17    }
18    return 0;
19 }
20
21

```

	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.

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H2**Started on** Wednesday, 8 October 2025, 8:46 AM**State** Finished**Completed on** Wednesday, 8 October 2025, 9:03 AM**Time taken** 16 mins 51 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	1
1 1 2 3 4	

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 int main() {
3     int n;
4     scanf("%d", &n);
5     int a[n];
6     for (int i = 0; i < n; i++) {
7         scanf("%d", &a[i]);
8     }
9     for (int i = 0; i < n; i++) {
10    for (int j = i + 1; j < n; j++) {
11        if (a[i] == a[j]) {
12            printf("%d\n", a[i]);
13            return 0;
14        }
15    }
16 }
17 }
18 }
```

	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.

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HEMASHREE R 2024-CSE ▾H2**Started on** Wednesday, 8 October 2025, 8:50 AM**State** Finished**Completed on** Wednesday, 8 October 2025, 9:03 AM**Time taken** 13 mins 31 secs**Marks** 1.00/1.00**Grade** 30.00 out of 30.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00

Find the intersection of two sorted arrays.

OR in other words,

Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

- The first line contains T, the number of test cases. Following T lines contain:

- Line 1 contains N1, followed by N1 integers of the first array
- Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

1

3 10 17 57

6 2 7 10 15 57 246

Output:

10 57

Input:

1

6 1 2 3 4 5 6

2 1 6

Output:

1 6

For example:

Input	Result
1	10 57
3 10 17 57	
6	
2 7 10 15 57 246	

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 int main() {
3     int T;
4     scanf("%d", &T);
5     while (T--) {
6         int N1;
7         scanf("%d", &N1);
8         int A[N1];
9         for (int i = 0; i < N1; i++) {
10             scanf("%d", &A[i]);
11         }
12         int N2;
13         scanf("%d", &N2);
14         int B[N2];
15         for (int i = 0; i < N2; i++) {
16             scanf("%d", &B[i]);
17         }
18         int i = 0, j = 0;
19         while (i < N1 && j < N2) {
20             if (A[i] < B[j]) {
21                 i++;
22             } else if (A[i] > B[j]) {
23                 j++;
24             } else {
25                 printf("%d ", A[i]);
26                 i++;
27                 j++;
28             }
29         }
30     }
31 }
```

```

23
24    j++;
25 } else {
26     printf("%d ", A[i]);
27     i++;
28     j++;
29 }
30 printf("\n");
31 }
32 }
33

```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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H2

Started on Wednesday, 8 October 2025, 8:53 AM

State Finished

Completed on Wednesday, 8 October 2025, 9:04 AM

Time taken 10 mins 47 secs

Marks 1.00/1.00

Grade 30.00 out of 30.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00

Find the intersection of two sorted arrays.

OR in other words,

Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

- The first line contains T, the number of test cases. Following T lines contain:

- Line 1 contains N1, followed by N1 integers of the first array
- Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

```
1
3 10 17 57
6 2 7 10 15 57 246
```

Output:

```
10 57
```

Input:

```
1
6 1 2 3 4 5 6
2 1 6
```

Output:

```
1 6
```

For example:

Input	Result
1	10 57
3 10 17 57	
6	
2 7 10 15 57 246	

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 int main() {
4     int T;
5     scanf("%d", &T);
6     while (T--) {
7         int N1;
8         scanf("%d", &N1);
9         int A[N1];
10    for (int i = 0; i < N1; i++) {
11        scanf("%d", &A[i]);
12    }
13
14    int N2;
15    scanf("%d", &N2);
16    int B[N2];
17    for (int i = 0; i < N2; i++) {
18        scanf("%d", &B[i]);
19    }
20
21    int i = 0, j = 0;
22    while (i < N1 && j < N2) {
```

```

23 ↓
24     if (A[i] < B[j]) {
25         i++;
26     } else if (A[i] > B[j]) {
27         j++;
28     } else {
29         printf("%d ", A[i]);
30         i++;
31         j++;
32     }
33     printf("\n");
34 }
35     return 0;
36 }
37

```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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HEMASHREE R 2024-CSE

H2

Started on Wednesday, 8 October 2025, 9:09 AM**State** Finished**Completed on** Wednesday, 8 October 2025, 9:18 AM**Time taken** 9 mins 10 secs**Marks** 1.00/1.00**Grade** 4.00 out of 4.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[j] - A[i] = k$, $i \neq j$.

Input Format:

First Line n - Number of elements in an array

Next n Lines - N elements in the array

k - Non - Negative Integer

Output Format:

1 - If pair exists

0 - If no pair exists

Explanation for the given Sample Testcase:

YES as $5 - 1 = 4$

So Return 1.

For example:

Input	Result
3	1
1 3 5	
4	

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 int main() {
3     int n;
4     scanf("%d", &n);
5     int A[n];
6     for (int i = 0; i < n; i++) {
7         scanf("%d", &A[i]);
8     }
9     int k;
10    scanf("%d", &k);
11    int i = 0, j = 1;
12    while (i < n && j < n) {
13        int diff = A[j] - A[i];
14        if (diff == k && i != j) {
15            printf("1\n");
16            return 0;
17        } else if (diff < k) {
18            j++;
19        } else {
20            i++;
21            if (i == j) j++;
22        }
23    }
24    printf("0\n");
25    return 0;
26 }
27

```

	Input	Expected	Got	
✓	3 1 3 5 4	1	1	✓

	Input	Expected	Got	
✓	10 1 4 6 8 12 14 15 20 21 25 1	1	1 ✓	
✓	10 1 2 3 5 11 14 16 24 28 29 0	0	0 ✓	
✓	10 0 2 3 7 13 14 15 20 24 25 10	1	1 ✓	

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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HEMASHREE R 2024-CSE

H2

Started on Wednesday, 8 October 2025, 8:57 AM**State** Finished**Completed on** Wednesday, 8 October 2025, 9:04 AM**Time taken** 7 mins 24 secs**Marks** 1.00/1.00**Grade** 4.00 out of 4.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[j] - A[i] = k$, $i \neq j$.

Input Format:

First Line n - Number of elements in an array

Next n Lines - N elements in the array

k - Non - Negative Integer

Output Format:

1 - If pair exists

0 - If no pair exists

Explanation for the given Sample Testcase:

YES as $5 - 1 = 4$

So Return 1.

For example:

Input	Result
3	1
1 3 5	
4	

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2
3 int main() {
4     int n;
5     scanf("%d", &n);
6     int A[n];
7     for (int i = 0; i < n; i++) {
8         scanf("%d", &A[i]);
9     }
10    int k;
11    scanf("%d", &k);
12
13    int i = 0, j = 1;
14    while (i < n && j < n) {
15        int diff = A[j] - A[i];
16        if (diff == k && i != j) {
17            printf("1\n");
18            return 0;
19        } else if (diff < k) {
20            j++;
21        } else {
22            i++;
23            if (i == j) j++;
24        }
25    }
26    printf("0\n");
27    return 0;
28}
29

```

	Input	Expected	Got	
✓	3 1 3 5 4	1	1	✓
✓	10 1 4 6 8 12 14 15 20 21 25 1	1	1	✓
✓	10 1 2 3 5 11 14 16 24 28 29 0	0	0	✓
✓	10 0 2 3 7 13 14 15 20 24 25 10	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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