



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 2 3 4	1

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 |    f o r   ( i n t   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 [ v a l   -   1 ]   =   - a [ v a l   -   1 ] ;
17 |    }
18 |    r e t u r n   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.



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 2 3 4	1

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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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:

1. Line 1 contains N1, followed by N1 integers of the first array
2. 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 3 10 17 57 6 2 7 10 15 57 246	10 57

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 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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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:

1. Line 1 contains N1, followed by N1 integers of the first array
2. 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 3 10 17 57 6 2 7 10 15 57 246	10 57

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     if (A[i] < B[j]) {  
24         i++;  
25     } else if (A[i] > B[j]) {  
26         j++;  
27     } else {  
28         printf("%d ", A[i]);  
29         i++;  
30         j++;  
31     }  
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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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 3 5 4	1

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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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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