

COMPETITIVE PROGRAMMING:

PROBLEM 4:

AIM:

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.

CODE:

```
#include <stdio.h>
```

```
void findIntersection(int n1, int arr1[], int n2, int arr2[]) {
```

```
    int i = 0, j = 0;
```

```
    while (i < n1 && j < n2) {
```

```
        if (arr1[i] == arr2[j]) {
```

```
            printf("%d ", arr1[i]);
```

```
            i++;
```

```
            j++;
```

```
        } else if (arr1[i] < arr2[j]) {
```

```
            i++;
```

```
        } else {
```

```
            j++;
```

```
        }
```

```
    }
```

```
    printf("\n");
```

```
}
```

```
int main() {  
    int T;  
    scanf("%d", &T);  
  
    while (T--) {  
        int n1, n2;  
        scanf("%d", &n1);  
        int arr1[n1];  
        for (int i = 0; i < n1; i++) {  
            scanf("%d", &arr1[i]);  
        }  
  
        scanf("%d", &n2);  
        int arr2[n2];  
        for (int i = 0; i < n2; i++) {  
            scanf("%d", &arr2[i]);  
        }  
  
        findIntersection(n1, arr1, n2, arr2);  
    }  
  
    return 0;  
}
```

INPUT AND OUTPUT:

	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	✓