

```
// ID : 242014124
```

```
// Name: Tazminur Rahman Tanim
```

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

```
void insertionSortDescending(int arr[], int n) {
```

```
    int i, key, j;
```

```
    for (i = 1; i < n; i++) {
```

```
        key = arr[i];
```

```
        j = i - 1;
```

```
        while (j >= 0 && arr[j] < key) {
```

```
            arr[j + 1] = arr[j];
```

```
            j = j - 1;
```

```
        }
```

```
        arr[j + 1] = key;
```

```
    }
```

```
}
```

```
int binarySearchDescending(int arr[], int n, int x) {
```

```
    int low = 0, high = n - 1;
```

```
    while (low <= high) {
```

```
        int mid = (low + high) / 2;
```

```
        if (arr[mid] == x)
```

```
            return 1;
```

```
        else if (arr[mid] < x)
```

```
        high = mid - 1;
    else
        low = mid + 1;
    }
    return 0;
}
```

```
int main() {
    int n1, n2, x;
    scanf("%d", &n1);
    int labA[n1];
    for (int i = 0; i < n1; i++) {
        scanf("%d", &labA[i]);
    }
```

```
    scanf("%d", &n2);
    int labB[n2];
    for (int i = 0; i < n2; i++) {
        scanf("%d", &labB[i]);
    }
```

```
    scanf("%d", &x);
```

```
    int merged[n1 + n2];
    for (int i = 0; i < n1; i++) {
        merged[i] = labA[i];
```

```
}  
  
for (int i = 0; i < n2; i++) {  
    merged[n1 + i] = labB[i];  
}  
  
int total = n1 + n2;  
  
insertionSortDescending(merged, total);  
  
for (int i = 0; i < total; i++) {  
    printf("%d ", merged[i]);  
}  
printf("\n");  
  
if (binarySearchDescending(merged, total, x)) {  
    printf("Score %d is present in the list.\n", x);  
} else {  
    printf("Score %d is not present in the list.\n", x);  
}  
  
return 0;  
}
```