1 a.#include <stdio.h>

```
void swapByValue(int x, int y) {
    int temp;
    temp = x;
    x = y;
    y = temp;
}

int main() {
    int a, b;

    printf("Enter the value of a: ");
    scanf("%d", &a);
    printf("Enter the value of b: ");
    scanf("%d", &b);

    printf("Before swapping: a = %d, b = %d\n", a, b);


    swapByValue(a, b);

    printf("After swapping (Call By Value): a = %d, b = %d\n", a, b);

    return 0;
}
```

1 b.#include <stdio.h>

```
void swapByReference(int *x, int *y) {
    int temp;
    temp = *x;
    *x = *y;
    *y = temp;
}

int main() {
    int a, b;

    printf("Enter the value of a: ");
    scanf("%d", &a);
    printf("Enter the value of b: ");
    scanf("%d", &b);

    printf("Before swapping: a = %d, b = %d\n", a, b);
```

```
    swapByReference(&a, &b);

    printf("After swapping (Call By Reference): a = %d, b = %d\n", a, b);

    return 0;
}
```

2.

```
#include <stdio.h>

void printUnion(int arr1[], int arr2[], int n, int m) {
    int i = 0, j = 0;
    while (i < n && j < m) {
        if (arr1[i] < arr2[j]) {
            printf("%d ", arr1[i]);
            i++;
        } else if (arr2[j] < arr1[i]) {
            printf("%d ", arr2[j]);
            j++;
        } else {
            printf("%d ", arr2[j]);
            i++;
            j++;
        }
    }

    while (i < n) {
        printf("%d ", arr1[i]);
        i++;
    }
    while (j < m) {
        printf("%d ", arr2[j]);
        j++;
    }
}

int main() {
    int n, m;

    printf("Enter size of first array: ");
    scanf("%d", &n);

    int arr1[n];
    printf("Enter elements of first array in sorted order: ");
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr1[i]);
    }

    printf("Enter size of second array: ");
```

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

    int arr2[m];
    printf("Enter elements of second array in sorted order: ");
    for (int i = 0; i < m; i++) {
        scanf("%d", &arr2[i]);
    }

    printf("Union of the arrays: ");
    printUnion(arr1, arr2, n, m);

    return 0;
}
```

3.

```
#include <stdio.h>

void findDuplicates(int arr[], int size) {
    int *count = (int *)calloc(size, sizeof(int));
    int i, flag = 0;

    for (i = 0; i < size; i++) {
        count[arr[i]]++;
    }

    printf("Duplicates in the array: ");

    for (i = 0; i < size; i++) {
        if (count[i] > 1) {
            printf("%d ", i);
            flag = 1;
        }
    }

    if (!flag) {
        printf("-1");
    }

    free(count);
}

int main() {
    int N;
    printf("Enter the size of the array: ");
    scanf("%d", &N);

    int a[N];
    printf("Enter %d elements: ", N);
    for (int i = 0; i < N; i++) {
```

```
        scanf("%d", &a[i]);
    }

    findDuplicates(a, N);

    return 0;
}
```