

Code:

```
#include <iostream>
using namespace std;
int count = 0;

void Merge(int arr[], int beg, int mid, int end) {
    int i, j, k, n1, n2;

    n1 = mid - beg + 1;
    n2 = end - mid;

    int leftArr[n1], rightArr[n2];

    for (int i = 0; i < n1; i++) {
        leftArr[i] = arr[beg + i];
    }

    for (int j = 0; j < n2; j++) {
        rightArr[j] = arr[mid + 1 + j];
    }

    i = 0;
    j = 0;
    k = beg;

    while (i < n1 && j < n2) {
        if (leftArr[i] < rightArr[j]) {
            arr[k] = leftArr[i];
            i++;
        } else {
            arr[k] = rightArr[j];
            j++;
        }
        k++;
    }

    while (i < n1) {
        arr[k] = leftArr[i];
        i++;
        k++;
    }

    while (j < n2) {
        arr[k] = rightArr[j];
        j++;
        k++;
    }
}
```

```

    count++;
}

void mergeSort(int arr[], int beg, int end) {
    if (beg < end) {
        int mid = (beg + end) / 2;
        mergeSort(arr, beg, mid);
        mergeSort(arr, mid + 1, end);
        Merge(arr, beg, mid, end);
    }
}

int main() {

    int n;
    cout << "Enter the number of elements: ";
    cin >> n;

    int arr[n];
    cout << "Enter the elements with space: ";
    for (int i = 0; i < n; i++) {
        cin >> arr[i];
    }

    mergeSort(arr, 0, n - 1);
    cout << "\nArray after sorting: " << endl;
    ;
    for (int i = 0; i < n; i++) {
        cout << arr[i] << " ";
        cout << endl;
    }

    cout << "\nNo of calls to the merge sort procedure: " << count;

    return 0;
}

```

Sample Output:

```

Enter the number of elements: 4
Enter the elements with space: 89 55 12 47
Array after sorting:
12
47
55
89

```

No of calls to the merge sort procedure: 3