

```

public class mergeSort {

    public static void merge(int[] array, int left, int mid, int right) {
        int n1 = mid - left + 1;
        int n2 = right - mid;
        int[] leftArray = new int[n1];
        int[] rightArray = new int[n2];

        for (int i = 0; i < n1; ++i)
            leftArray[i] = array[left + i];
        for (int j = 0; j < n2; ++j)
            rightArray[j] = array[mid + 1 + j];

        int i = 0, j = 0;
        int k = left;
        while (i < n1 && j < n2) {
            if (leftArray[i] <= rightArray[j]) {
                array[k] = leftArray[i];
                i++;
            } else {
                array[k] = rightArray[j];
                j++;
            }
            k++;
        }

        while (i < n1) {
            array[k] = leftArray[i];
            i++;
            k++;
        }
    }
}

```

```
while (j < n2) {
```

```
array[k] = rightArray[j];
```

```
j++;
```

```
k++;
```

```
}
```

```
}
```

```
public static void mergeSort(int[] array, int left, int right) {
```

```
if (left < right) {
```

```
int mid = (left + right) / 2;
```

```
mergeSort(array, left, mid);
```

```
mergeSort(array, mid + 1, right);
```

```
merge(array, left, mid, right);
```

```
}
```

```
}
```

```
public static void main(String[] args) {
```

```
int[] array = {12, 11, 13, 5, 6, 7};
```

```
System.out.println("Siralamadan Önce:");
```

```
for (int value : array) {
```

```
System.out.print(value + " ");
```

```
}
```

```
mergeSort(array, 0, array.length - 1);
```

```
System.out.println("Siralamadan Sonra:");
```

```
for (int value : array) {
```

```
System.out.print(value + " ");
```

```
}}}
```