```java
/**
 * Implementation of Heap Sort algorithm
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 */
public class HeapSort {

    /**
     * Sorts the items using HeapSort algorithm
     * @param items - given items to be sorted
     */
    public static <E> void sort(E[] items)
    {
        // 1. create a max heap out of the items
        MaxHeap<E> maxHeap = new MaxHeap<>(items);

        // 2. pop the max element from the heap and store it
        // at the end of the given array; each time we pop
        // from the heap a new spot opens up
        for (int i = items.length - 1; i > 0; i--) {
            items[i] = maxHeap.pop();
        }
    }

}

```