Given an array A of non-negative integers, half of the integers in A are odd, and half of the integers are even.

Sort the array so that whenever A[i] is odd, i is odd; and whenever A[i] is even, i is even.

You may return any answer array that satisfies this condition.

**Example 1:**

**Input:** [4,2,5,7]

**Output:** [4,5,2,7]

**Explanation:** [4,7,2,5], [2,5,4,7], [2,7,4,5] would also have been accepted.

**Note:**

1. 2 <= A.length <= 20000
2. A.length % 2 == 0
3. 0 <= A[i] <= 1000