

Quiz 10

Name: _____

NetID: _____

1) (2 points) An array of integers is called *nearly sorted* if the i -th smallest element appears in position $i - 1$, i , or $i + 1$ for every i . Write two arrays of length 8 that are nearly sorted but not sorted.

2) (8 points) In class, the method `int[] merge(int[] arr1, int[] arr2)` assumed both arrays were sorted and returned a sorted array containing all elements.

Rewrite `merge` so that it still returns a sorted array containing the elements of `arr1` and `arr2` even when the arrays are only nearly sorted. You may assume all elements are unique. *Hint: write a helper method to find the i -th smallest element.*