

PROBLEM 4

//Bubblesort can be considered similar to a type of mergesort because it sorts by dividing into groups and swapping which can be seen here:

```
//void swap(int *x, int *y)
//
//{
//
//  int temp = *x;
//
//  *x = *y;
//
//  *y = temp;
```

//Due to this, we can say the complexity can be summed up as $N\log N$ similar to the mergesort's complexity. Overall, the efficiency in such a sort is good. In order for a linear time solution to be possible you must first find the largest or smallest number in the array and use that
//as a