*int* max = 0;

*int*[] copied = new *int*[array.length];

for(*int* i = 0; i < array.length; i++) {

if(max < array[i]) {

max = array[i];

}

copied[i] = array[i];

}

*int* maxNumDigits = (*int*) *Math*.log10(max) + 1;

*LinkedList<LinkedList<Integer>>* buckets = new *LinkedList<LinkedList<Integer>>*();

for(*int* p = 0; p < 10; p++) {

buckets.add(new *LinkedList<Integer>*());

}

for(*int* j = 1; j <= maxNumDigits; j++) {

for(*int* k = 0; k < array.length; k++) {

*int* number = copied[k];

*int* digit = (*int*) ((number % *Math*.pow(10, j)) / *Math*.pow(10,j-1));

buckets.get(digit).add(number);

}

*int*[] partiallySorted = new *int*[array.length];

*int* numAt = 0;

search:

for(*int* m = 0; m < array.length; m++) {

while(!buckets.get(m).isEmpty()) {

partiallySorted[numAt] = buckets.get(m).pollFirst();

numAt++;

}

if(numAt == array.length) {

break search;

}

}

copied = partiallySorted;

}

return copied;