# **Quiz 2 Solution**

**Question 1**

Radix-Sort(A,n)

{

max = getMax(A,n);

for (pos = 1; max/pos > 0; pos \*= 10)

countSort(A, n, pos);

}

countSort(A,n,pos)

{

int output[n];

int i, count[10] = {0};

// Count the occurrences of digits in count[]

for (i = 0; i < n; i++)

count[(A[i]/pos) % 10]++;

// Change count[i] to hold the actual position of this digit

for (i = 1; i < 10; i++)

count[i] += count[i - 1];

// Build the output array

for (i = n - 1; i >= 0; i--) {

output[count[(A[i]/pos) % 10] - 1] = A[i];

count[(A[i]/pos) % 10]--;

}

**Question 2**



