Pseudo Code MergeSort

```
mergeSort(array A) {   // The length of A is n
     x = n / 2  // Integer division
     y = n - x

     B = new array of length x
     C = new array of length y

     B[0 .. x-1] = A[0 .. x-1]
     C[0 .. y-1] = A[x .. n-1]

     mergeSort(B)
     mergeSort(C)

     merge(B, C, A)
}


Merge(B, C, A) {
     // merge B and C into A
     // Assumes B.length + C.length == A.length

     i = j = k = 0

     while(i < B.length && j < C.length){
          if(B[i] <= C[j]) {
               A[k] = B[i]
               i++
          } else {
               A[k] = C[j]
               j++
          }
          k++
     }

     // See which one ended first & copy rest of other one
     if(i == B.length){
          // B ended first, so copy the rest of C into A
          A[k .. A.length-1] = C[j .. C.length-1]
     } else {
          // C ended first, so copy the rest of B into A
          A[k .. A.length-1] = B[I .. B.length-1]
     }
}
```