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){</pre>
          if(B[i] <= C[i]) {
               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]
          // C ended first, so copy the rest of B into A
          A[k .. A.length-1] = B[I .. B.length-1]
     }
}
```