

MERGE-SORT(A, p, r)

if $p < r$ // check for base case

$q = \lfloor (p + r) / 2 \rfloor$ // divide

 MERGE-SORT(A, p, q) // conquer

 MERGE-SORT($A, q + 1, r$) // conquer

 MERGE(A, p, q, r) // combine