

MERGE(A, p, q, r)

$n_1 = q - p + 1$

$n_2 = r - q$

let $L[1 \dots n_1 + 1]$ and $R[1 \dots n_2 + 1]$ be new arrays

for $i = 1$ **to** n_1

$L[i] = A[p + i - 1]$

for $j = 1$ **to** n_2

$R[j] = A[q + j]$

$L[n_1 + 1] = \infty$

$R[n_2 + 1] = \infty$

$i = 1$

$j = 1$

for $k = p$ **to** r

if $L[i] \leq R[j]$

$A[k] = L[i]$

$i = i + 1$

else $A[k] = R[j]$

$j = j + 1$