

if $r - \ell > 0$ **then**

$$m = \lfloor \frac{\ell+r}{2} \rfloor$$

MERGESORT($a[]$, ℓ , m)

MERGESORT($a[]$, $m + 1$, r)

for $i = \ell$ **to** m **do**

$$b[i - \ell + 1] = a[i]$$

for $j = m + 1$ **to** r **do**

$$c[j - m] = a[j]$$