QUICKSORT(A, p, r)

1 **if** $p < r$
2   // Partition the subarray around the pivot, which ends up in $A[q]$.
3      $q = $ PARTITION(A, p, r)
4   QUICKSORT($A, p, q - 1$) // recursively sort the low side
5   QUICKSORT($A, q + 1, r$) // recursively sort the high side