Merge sort

MERGE-SORT $A[1 . . n]$

1. If $n = 1$, done.
2. Recursively sort $A[1 . . \lceil n/2 \rceil]$ and $A[\lceil n/2 \rceil + 1 . . n]$.
3. "*Merge*" the 2 sorted lists.

Key subroutine: **MERGE**