



Sorting Problem, (non-decreasingly)

input:  $\langle a_1, a_2, \dots, a_n \rangle$

output:  $\langle a'_1, a'_2, \dots, a'_n \rangle : a'_1 \leq a'_2 \leq \dots \leq a'_n$

$\langle 39, 5, 40, -9 \rangle \xrightarrow{\text{Sorting}} \langle -9, 5, 30, 40 \rangle$

Correctness :  $\begin{cases} \text{terminate } \checkmark \\ \text{produce correct answer} \end{cases}$

efficiency  $\begin{cases} \text{time} \\ \text{space} \end{cases}$

NP-Completeness