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# INTRODUCTION TO AL- GORITHMS NOTES



# *The Role of Algorithms in Computing Notes*

## *Algorithms*

*An example of an algorithm is as follows*

Input: A sequence of  $n$  numbers  $(a_1, a_2, \dots, a_n)$ .

Output: A permutation (reordering)  $(a'_1, a'_2, \dots, a'_n)$  of the input sequence  
such that  $a'_1 \leq a'_2 \leq \dots \leq a'_n$ .

*What kinds of problems are solved by algorithms*