Algorithm	Concept	TC (Best)	TC (Worst)
Linear Search	Checks every item one by one (linearly) from the beginning until it finds what it's looking for.	$O(N)$	$O(1)$
Binary Search	Finds the middle item. If it's not the target, it throws away half of the array and repeats the process on the remaining half. The array must be sorted.	$O(logN)$	$O(1)$
Bubble Sort	Compares adjacent elements (side-by-side) and swaps them if they are out of order.	$O\left(N^2\right)$	$O(N)$
Selection Sort	Finds the minimum element in the unsorted portion and swaps it with the first element of that portion.	$O\left(N^2\right)$	$O\left(N^2\right)$
Insertion Sort	Takes an element (the **key**), finds its correct position by shifting other elements, and then inserts it.	$O\left(N^2\right)$	$O(N)$