

2.1.7

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2.1.7 Which method runs faster for an array in reverse order, selection sort or insertion sort?

Example array : 5 4 3 2 1

Selection sort. Even though it takes N times (for the example it is 5 times) to traverse the array, however, selection sort only needs N times to swap the items, while insertion sort requires to exchange items for approximately N^2 times before the array is sorted, this is because every exchange can only move the item one unit to the left or one unit to the right.