Input	1	2	3	4	5	6	7	8	9
Half Selection Sort	2ms	2ms	2ms	2295ms	2292ms	2343ms	Too big	Too big	Too big
Standard Sort	0ms	0ms	0ms	4ms	4ms	4ms	186ms	189ms	184ms
MergeSort	0ms	0ms	0ms	25ms	26ms	25ms	912ms	926ms	909ms
InPlaceMerge Sort	0ms	0ms	0ms	8ms	8ms	8ms	313ms	305ms	310ms
HalfHeapSort	0ms	0ms	0ms	3ms	3ms	4ms	151ms	159ms	161ms
QuickSelect	0ms	0ms	0ms	0ms	0ms	1ms	37ms	25ms	29ms

HalfSelectionSort: The runtime of this function is $O(n^2)$, more precisely $n^2/2$
StandardSort: The runtime of std::sort is $O(n\log n)$
MergeSort: The runtime of merge sort is $O(n\log n)$
InPlaceMergeSort: Is also $O(n\log n)$
HalfHeapSort: Is $O(n\log n)$
QuickSelect: is $O(n^2)$