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Ex.1.2. QuickSort analysis

Data/number of items	49999	50000	50001
Random	0.006	0.006	0.006
A-shape	0.041	0.035	0.040
V-shape	0.020	0.019	0.020

After the analysis of the table above, the thing that might be perceived as odd is a sudden decrease in the time spent on computations as the number of elements changes from 49999 to 50000 and a subsequent rise after incrementing the number of items once again. The phenomenon takes place only when A-shaped and V-shaped types of data are involved. A slightly better performance of the algorithm for the value n=50000 might be attributed to the way of partitioning an array in the later stages (the more balanced, the better, although with A- and V-shaped types of data and the pivot being equal to the value placed in the middle of an array, one of the most imbalanced choices will be made). If the number of elements is even, the algorithm will start making not the worst possible choices of the pivot sooner compared to the odd value of n. Consequently, the time result for n=50000 might turn out to be better despite being larger than the first value taken into consideration.