

Partition (of N)	quick sort on random.txt	heap sort on random.txt	insertion sort on random.txt	intro sort on random.txt	STL sort on random.txt	STLstable_sort on random.txt	NAME
1	0.05712	0.066781	4.65761	0.051645	0.050642	0.065337	
2	0.10687	0.145807	18.7645	0.103975	0.106553	0.13482	
3	0.15343	0.229683	42.4512	0.174667	0.164421	0.203144	
4	0.241018	0.315369	75.3681	0.26826	0.226642	0.300366	
5	0.318866	0.408052	117.646	0.350134	0.290349	0.380351	
6	0.374426	0.569535	171.474	0.418902	0.350519	0.446418	
7	0.411601	0.712512	235.42	0.439189	0.423312	0.542437	
8	0.468545	0.793921	302.757	0.518976	0.494976	0.615937	
9	0.504937	0.915399	385.831	0.566816	0.54296	0.694487	
10	0.574966	1.02086	472.488	0.656279	0.612448	0.774795	
Partition (of N)	quick sort on sorted.txt	heap sort on sorted.txt	insertion sort on sorted.txt	intro sort on sorted.txt	STL sort on sorted.txt	STLstable_sort on sorted.txt	
1	0.129751	0.067922	1.39596	0.077053	0.058304	0.059029	
2	0.655232	0.147957	5.84911	0.231878	0.136887	0.11626	
3	0.805243	0.2326	8.7027	0.310663	0.226584	0.174008	
4	1.46999	0.329891	16.2785	0.368576	0.308637	0.254247	
5	2.45113	0.409304	27.8282	0.562955	0.341327	0.324931	
6	4.10112	0.499913	52.3698	0.659558	0.507711	0.397572	
7	4.77691	0.590835	66.1741	0.810926	0.589805	0.455515	
8	6.65258	0.68574	80.571	0.824986	0.618798	0.528024	
9	7.03222	0.795482	94.4906	0.952909	0.755607	0.582881	
10	8.86209	0.922273	120.351	1.01884	0.758399	0.641876	
	class::method()	Expected Time Complexity random.txt	Graph Observed Time Complexity random.txt	Expected Time Complexity sorted.txt	Graph Observed Time Complexity sorted.txt		
	QuickSort	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$		
	HeapSort	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$		
	InsertionSort	$O(N^2)$	$O(N^2)$	$O(N)$	$O(N)$		
	IntroSort	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$		
	STLSort	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$		
	STLStableSort	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$	$O(N \log N)$		

