

DataType	DataSize	Algorithm	Comparisons	Time(s)	Algorithm	Comparisons	Time(s)
NearlySorted	1000	bubble-sort	499500	0.014979	counting-sort	1000	0.000114
NearlySorted	2000	bubble-sort	1999000	0.059734	counting-sort	2000	0.000225
NearlySorted	5000	bubble-sort	12497500	0.372515	counting-sort	5000	0.000346
NearlySorted	10000	bubble-sort	49995000	1.487171	counting-sort	10000	0.000691
NearlySorted	20000	bubble-sort	199990000	5.9057	counting-sort	20000	0.001696
NearlySorted	1000	flash-sort	1000	0.000133	heap-sort	17555	0.00076
NearlySorted	2000	flash-sort	2000	0.000404	heap-sort	39210	0.001945
NearlySorted	5000	flash-sort	5000	0.000589	heap-sort	112126	0.004726
NearlySorted	10000	flash-sort	10000	0.001546	heap-sort	244459	0.011009
NearlySorted	20000	flash-sort	20000	0.002367	heap-sort	529056	0.022404
NearlySorted	1000	insertion-sort	8616	0.000383	merge-sort	6603	0.002117
NearlySorted	2000	insertion-sort	15732	0.000418	merge-sort	13779	0.004164
NearlySorted	5000	insertion-sort	22654	0.001137	merge-sort	37168	0.011162
NearlySorted	10000	insertion-sort	92224	0.002483	merge-sort	88843	0.020868
NearlySorted	20000	insertion-sort	133348	0.004522	merge-sort	176813	0.045811
NearlySorted	1000	quick-sort	8150	0.000237	radix-sort	10029	0.00035
NearlySorted	2000	quick-sort	18774	0.000764	radix-sort	26039	0.000561
NearlySorted	5000	quick-sort	51823	0.001639	radix-sort	65039	0.001382
NearlySorted	10000	quick-sort	114727	0.003596	radix-sort	130039	0.002799
NearlySorted	20000	quick-sort	247334	0.006639	radix-sort	320049	0.007286
NearlySorted	1000	selection-sort	499500	0.014791	shaker-sort	499500	0.010635
NearlySorted	2000	selection-sort	1999000	0.059601	shaker-sort	1999000	0.045795
NearlySorted	5000	selection-sort	12497500	0.369856	shaker-sort	12497500	0.25641
NearlySorted	10000	selection-sort	49995000	1.478036	shaker-sort	49995000	1.0378
NearlySorted	20000	selection-sort	199990000	5.920987	shaker-sort	199990000	4.137657
NearlySorted	1000	shell-sort	10526	0.000492			
NearlySorted	2000	shell-sort	22340	0.000997			
NearlySorted	5000	shell-sort	60668	0.00204			
NearlySorted	10000	shell-sort	141565	0.004404			
NearlySorted	20000	shell-sort	291948	0.00911			
Random	1000	bubble-sort	499500	0.023256	counting-sort	1000	0.000122
Random	2000	bubble-sort	1999000	0.094099	counting-sort	2000	0.000156
Random	5000	bubble-sort	12497500	0.562061	counting-sort	5000	0.000367
Random	10000	bubble-sort	49995000	2.266747	counting-sort	10000	0.001089
Random	20000	bubble-sort	199990000	9.085474	counting-sort	20000	0.00183
Random	1000	flash-sort	1000	0.000176	heap-sort	16824	0.000899
Random	2000	flash-sort	2000	0.000241	heap-sort	37690	0.001768
Random	5000	flash-sort	5000	0.000851	heap-sort	107764	0.004817
Random	10000	flash-sort	10000	0.001532	heap-sort	235255	0.010636
Random	20000	flash-sort	20000	0.003642	heap-sort	510815	0.021883
Random	1000	insertion-sort	250639	0.007572	merge-sort	8728	0.002179
Random	2000	insertion-sort	1015106	0.030775	merge-sort	19403	0.004557
Random	5000	insertion-sort	6286466	0.191164	merge-sort	55295	0.01062
Random	10000	insertion-sort	24792933	0.771015	merge-sort	120489	0.022808
Random	20000	insertion-sort	100505762	3.028771	merge-sort	260859	0.045885

Random	1000	quick-sort	10884	0.000319	radix-sort	10029	0.000219
Random	2000	quick-sort	23128	0.000673	radix-sort	26039	0.000556
Random	5000	quick-sort	70026	0.002597	radix-sort	65039	0.001397
Random	10000	quick-sort	152201	0.004333	radix-sort	130039	0.003204
Random	20000	quick-sort	329077	0.009603	radix-sort	320049	0.007637
Random	1000	selection-sort	499500	0.016083	shaker-sort	499500	0.018194
Random	2000	selection-sort	1999000	0.062759	shaker-sort	1999000	0.073243
Random	5000	selection-sort	12497500	0.371838	shaker-sort	12497500	0.445282
Random	10000	selection-sort	49995000	1.4993	shaker-sort	49995000	1.782078
Random	20000	selection-sort	199990000	5.931008	shaker-sort	199990000	7.1431
Random	1000	shell-sort	14674	0.000487			
Random	2000	shell-sort	35008	0.001337			
Random	5000	shell-sort	112443	0.004149			
Random	10000	shell-sort	261638	0.008981			
Random	20000	shell-sort	616825	0.020348			

Reversed	1000	bubble-sort	499500	0.030361	counting-sort	1000	0.000074
Reversed	2000	bubble-sort	1999000	0.119838	counting-sort	2000	0.000139
Reversed	5000	bubble-sort	12497500	0.733977	counting-sort	5000	0.00052
Reversed	10000	bubble-sort	49995000	2.935756	counting-sort	10000	0.000874
Reversed	20000	bubble-sort	199990000	11.71405	counting-sort	20000	0.001439
Reversed	1000	flash-sort	1000	0.000189	heap-sort	15965	0.000685
Reversed	2000	flash-sort	2000	0.000247	heap-sort	35964	0.001533
Reversed	5000	flash-sort	5000	0.00084	heap-sort	103227	0.004622
Reversed	10000	flash-sort	10000	0.001221	heap-sort	226682	0.009838
Reversed	20000	flash-sort	20000	0.00291	heap-sort	493307	0.022133
Reversed	1000	insertion-sort	499500	0.015792	merge-sort	4932	0.002073
Reversed	2000	insertion-sort	1999000	0.062021	merge-sort	10864	0.004654
Reversed	5000	insertion-sort	12497500	0.381045	merge-sort	29804	0.010995
Reversed	10000	insertion-sort	49995000	1.517119	merge-sort	64608	0.021525
Reversed	20000	insertion-sort	199990000	6.075681	merge-sort	139216	0.044046
Reversed	1000	quick-sort	8135	0.000364	radix-sort	10029	0.000334
Reversed	2000	quick-sort	18262	0.000682	radix-sort	26039	0.000566
Reversed	5000	quick-sort	52127	0.001469	radix-sort	65039	0.001398
Reversed	10000	quick-sort	114243	0.003443	radix-sort	130039	0.002773
Reversed	20000	quick-sort	248473	0.007144	radix-sort	320049	0.007085
Reversed	1000	selection-sort	499500	0.014979	shaker-sort	499500	0.024681
Reversed	2000	selection-sort	1999000	0.06092	shaker-sort	1999000	0.097879
Reversed	5000	selection-sort	12497500	0.377912	shaker-sort	12497500	0.615
Reversed	10000	selection-sort	49995000	1.484127	shaker-sort	49995000	2.468312
Reversed	20000	selection-sort	199990000	5.896045	shaker-sort	199990000	9.813412
Reversed	1000	shell-sort	11716	0.000533			
Reversed	2000	shell-sort	26416	0.001268			
Reversed	5000	shell-sort	78798	0.002734			
Reversed	10000	shell-sort	172578	0.005406			
Reversed	20000	shell-sort	375138	0.011795			

Sorted	1000 bubble-sort	499500	0.015591	counting-sort	1000	0.000086
Sorted	2000 bubble-sort	1999000	0.058844	counting-sort	2000	0.000216
Sorted	5000 bubble-sort	12497500	0.372954	counting-sort	5000	0.000352
Sorted	10000 bubble-sort	49995000	1.486207	counting-sort	10000	0.001014
Sorted	20000 bubble-sort	199990000	5.917201	counting-sort	20000	0.001811
Sorted	1000 flash-sort	1000	0.000132	heap-sort	17583	0.00107
Sorted	2000 flash-sort	2000	0.000308	heap-sort	39159	0.001756
Sorted	5000 flash-sort	5000	0.000597	heap-sort	112126	0.004727
Sorted	10000 flash-sort	10000	0.001208	heap-sort	244460	0.010879
Sorted	20000 flash-sort	20000	0.002559	heap-sort	529074	0.022918
Sorted	1000 insertion-sort	1998	0.00004	merge-sort	5044	0.001934
Sorted	2000 insertion-sort	3998	0.000118	merge-sort	11088	0.004375
Sorted	5000 insertion-sort	9998	0.000227	merge-sort	32004	0.01073
Sorted	10000 insertion-sort	19998	0.000499	merge-sort	69008	0.022001
Sorted	20000 insertion-sort	39998	0.000787	merge-sort	148016	0.044438
Sorted	1000 quick-sort	7987	0.00035	radix-sort	10029	0.000243
Sorted	2000 quick-sort	17964	0.000761	radix-sort	26039	0.000893
Sorted	5000 quick-sort	51822	0.001589	radix-sort	65039	0.001834
Sorted	10000 quick-sort	113631	0.003205	radix-sort	130039	0.003303
Sorted	20000 quick-sort	247248	0.007023	radix-sort	320049	0.007189
Sorted	1000 selection-sort	499500	0.015055	shaker-sort	499500	0.010749
Sorted	2000 selection-sort	1999000	0.061256	shaker-sort	1999000	0.041145
Sorted	5000 selection-sort	12497500	0.372466	shaker-sort	12497500	0.259499
Sorted	10000 selection-sort	49995000	1.496309	shaker-sort	49995000	1.03073
Sorted	20000 selection-sort	199990000	5.948124	shaker-sort	199990000	4.130996
Sorted	1000 shell-sort	8006	0.000272			
Sorted	2000 shell-sort	18006	0.000786			
Sorted	5000 shell-sort	55005	0.001648			
Sorted	10000 shell-sort	120005	0.003748			
Sorted	20000 shell-sort	260005	0.007841			







