

	Elements	Parallel Sort			New Sort				Percent Error	
		Start	End	Total Time	Stats	Buckets	sorterBucket	Total Time	Difference	Percent Less
Compared to Parallel Sort -1	1000	18.63	18.94	0.31	0.00	0.00	0.00	0.01	-0.30	-98.38
	10000	41.99	42.30	0.31	0.00	0.01	0.00	0.02	-0.29	-95.16
	100000	47.43	47.67	0.24	0.01	0.03	0.01	0.05	-0.19	-79.08
	1000000	48.83	49.45	0.62	0.04	0.11	0.01	0.16	-0.46	-74.20
	10000000	44.93	45.41	0.48	0.07	0.15	0.04	0.26	-0.22	-46.57
		Start	End		Start	End				
Compared Parallel Sort -2	1000	41.96	42.16	0.20	42.26	42.28	~99.99999999999999	0.02	-0.19	-92.20
	10000	41.16	41.52	0.36	41.52	41.53	~99.99999999999999	0.01	-0.35	-97.20
	100000	55.16	55.41	0.25	55.41	55.49	~99.99999999999999	0.08	-0.17	-67.33
	1000000	8.08	8.76	0.68	8.76	8.92	~99.99999999999999	0.16	-0.52	-75.99
	10000000	7.73	8.99	1.25	8.99	9.53	~99.99999999999999	0.54	-0.71	-56.79
	100000000	11.93	17.84	5.91	17.84	20.91	~99.99999999999999	3.06	-2.85	-48.23
HEAP ERROR										
	Elements	Parallel Sort			New Sort			Percent Error		
		Start Time	End Time	Total Time	Start Time	End Time	Total Time	Difference	Percent Less	
Compared to Parallel Sort 3	1000	43.47	43.74	0.27	43.74	43.76	0.02	-0.25		-94.42
	10000	1.99	2.35	0.37	2.35	2.37	0.02	-0.35		-95.66
	100000	5.21	5.49	0.28	5.49	5.56	0.07	-0.22		-75.70
	1000000	54.58	55.09	0.51	55.09	55.23	0.13	-0.38		-74.02
	10000000	42.71	43.95	1.24	43.95	44.42	0.47	-0.77		-62.04
	100000000	32.07	37.89	5.82	37.89	41.28	3.40	-2.43		-41.67
HEAP ERROR										
	Elements	Merge Sort			New Sort			Percent Error		
		Start Time	End Time	Total Time	Start Time	End Time	Total Time	Difference	Percent Less	
Compared to Merge Sort 1	1000	52.93	53.13	0.21	20.23	20.56	0.33	0.12		59.13
	10000	1.99	2.35	0.37	2.35	2.37	0.02	-0.35		-95.66
	100000	5.21	5.49	0.28	5.49	5.56	0.07	-0.22		-75.70
	1000000	54.58	55.09	0.51	55.09	55.23	0.13	-0.38		-74.02
	10000000	42.71	43.95	1.24	43.95	44.42	0.47	-0.77		-62.04
	100000000	32.07	37.89	5.82	37.89	41.28	3.40	-2.43		-41.67
HEAP ERROR										

JAVA	Parallel Sort				New Sort				Percent Faster (%)
Elements	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	
1000	0.31	0.20	0.27	0.26	0.01	0.02	0.02	0.01	95.40
10000	0.31	0.36	0.37	0.35	0.02	0.01	0.02	0.01	96.04
100000	0.24	0.25	0.28	0.26	0.05	0.08	0.07	0.07	74.03
1000000	0.62	0.68	0.51	0.61	0.16	0.16	0.13	0.15	74.82
10000000	0.48	1.25	1.24	0.99	0.26	0.54	0.47	0.42	57.32
100000000	5.71	5.91	5.82	5.81	3.31	3.06	3.40	3.26	44.01
JAVA	Merge Sort - My Own				New Sort				Percent Faster (%)
Elements	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	
1000	0.21	0.17	0.30	0.22	0.18	0.20	0.17	0.18	38.51
10000	0.52	0.17	0.40	0.36	0.17	0.34	0.40	0.31	23.94
100000	0.19	0.62	0.61	0.47	0.23	0.18	0.23	0.22	64.41
1000000	1.09	1.28	1.18	1.18	0.22	0.32	0.87	0.47	59.97
10000000	10.18	10.74	10.01	10.31	0.82	0.69	1.72	1.08	89.25
100000000	HEAP	HEAP	HEAP	HEAP	2.16	4.53	7.42	4.70	N/A
JAVA	Bucket Sort - Optimized				New Sort				Percent Faster (%)
Elements	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	Trial 1 (s)	Trial 2 (s)	Trial 3 (s)	Average (s)	
1000	0.13	0.33	0.11	0.19	0.11	0.15	0.17	0.14	-33.96
10000	0.45	0.42	0.40	0.42	0.14	0.16	0.15	0.15	62.68
100000	0.10	0.10	0.11	0.11	0.14	0.21	0.24	0.20	-83.02
1000000	0.11	0.12	0.42	0.22	0.19	0.28	0.23	0.23	44.20
10000000	0.22	0.19	0.18	0.19	0.96	0.43	0.69	0.69	-296.57
100000000	0.80	0.72	0.69	0.74	2.14	2.06	2.07	2.09	-182.93