Efficiency Testing

Insertion Sort

List size:	Random False	Sorted	Inverse Sorted
200	0.03	0.03	0.08
1000	0.36	0.003	0.65
5000	27.0	0.04	16.0
10,000	84.0	0.06	169.0
50,000	1269	0.13	4080.0
75,000	5717.0	0.07	8122
100,000	9956.0	0.24	16069
500,000	441177.0	1.54	N/A

Selection Sort

List size:	Random False	Sorted	Inverse Sorted
200	0.06	0.09	0.16
1000	0.589	0.53	0.68
5000	33.0	17	16
10,000	67	66	64
50,000	2211	1768	1650
75,000	6256.0	5248	4009
100,000	11124.0	9318	7093
500,000	425451.0	N/A	N/A

Shell Sort

List size:	Random False	Sorted	Inverse Sorted
200	0.005	0.03	0.03
1000	0.105	0.03	0.04
5000	6.0	0.20	0.60
10,000	7.0	0.70	0.70
50,000	13	3	4
75,000	21	5.40	7
100,000	31	7.30	9
500,000	342.0	74	95

Bucket Sort

List size:	Random False	Sorted	Inverse Sorted
200	0.08	N/A	N/A
1000	0.404	N/A	N/A
5000	16	N/A	N/A
10,000	78	N/A	N/A
50,000	N/A	N/A	N/A
75,000	N/A	N/A	N/A
100,000	N/A	N/A	N/A
500,000	N/A	N/A	N/A

Quick Sort

List size:	Random False	Sorted	Inverse Sorted
200	0.285	0.23	N/A
1000	0.236	0.20	N/A
5000	11.0	7	N/A
10,000	22.0	3	N/A
50,000	97.0	19	N/A
75,000	116.0	22	N/A
100,000	125.0	23	N/A
500,000	275.0	54	N/A

Radix Sort

List size:	Random	Sorted	Inverse Sorted
200	0.085	0.08	0.08
1000	0.226	0.05	0.06
5000	1.1	2	2
10,000	117.0	2	N/A
50,000	2840.0	6	N/A
75,000	18.55	9	N/A
100,000	11124.0	9	N/A
500,000	425451.0	45	N/A

Heap Sort

List size:	Random	Sorted	Inverse Sorted
200	0.04	0.06	0.08
1000	0.14	0.12	0.09
5000	1	0.90	1
10,000	2	2	2
50,000	12	8	10
75,000	21	12	14.7
100,000	30	17	21
500,000	223	89	121.4

Insertion Sort LL

List size:	Random	Sorted	Inverse Sorted
200	7	5	8
1000	10	10	10
5000	52	35	54
10,000	198	124	187
50,000	6559	3068	5334
75,000	14561	6983	11505
100,000	28570	13256	21204
500,000	425451.0	N/A	N/A

Merge Sort LL	(Incomplete)		
List size:	Random	Sorted	Inverse Sorted
200	N/A	N/A	N/A
1000	N/A	N/A	N/A
5000	N/A	N/A	N/A
10,000	N/A	N/A	N/A
50,000	N/A	N/A	N/A
75,000	N/A	N/A	N/A
100,000	N/A	N/A	N/A
500,000	N/A	N/A	N/A

Selection Sort LL			
List size:	Random	Sorted	Inverse Sorted
200	7	5	5
1000	10	10	10
5000	54	37	38
10,000	202	123	139
50,000	6531	2996	3117
75,000	14651	6524	7025
100,000	28954	12105	12245
500,000	N/A	N/A	N/A

Optimized QuickSort

List size:	Random	Sorted	Inverse Sorted
200	0.03	0.05	0.05
1000	0.06	0.02	0.02
5000	0.32	0.06	0.09
10,000	0.73	0.02	0.24
50,000	4.7	0.97	1.4
75,000	8	1.45	2.0
100,000	11	2.0	2.8
500,000	71	10.6	13.5