

Welcome to the Sorting Algorithm Test
Time is in seconds

The Algorithm is Selection Sort

The size is n = 10

Random | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000

The size is n = 100

Random | 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 | Ave time 0.00002
Sort | 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 | Ave time 0.00002
Rev Sort| 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00002 || 0.00003 || 0.00002 || 0.00002 || 0.00002 || 0.00002 | Ave time 0.00002

The size is n = 1,000

Random | 0.00140 || 0.00142 || 0.00144 || 0.00147 || 0.00138 || 0.00142 || 0.00150 || 0.00152 || 0.00143 || 0.00146 | Ave time 0.00144
Sort | 0.00158 || 0.00175 || 0.00162 || 0.00158 || 0.00158 || 0.00159 || 0.00171 || 0.00154 || 0.00164 || 0.00169 | Ave time 0.00163
Rev Sort| 0.00171 || 0.00173 || 0.00178 || 0.00174 || 0.00169 || 0.00198 || 0.00170 || 0.00165 || 0.00162 || 0.00160 | Ave time 0.00172

The size is n = 10,000

Random | 0.14606 || 0.15251 || 0.14156 || 0.13945 || 0.13978 || 0.13841 || 0.14176 || 0.18035 || 0.13899 || 0.13892 | Ave time 0.14578
Sort | 0.15750 || 0.15657 || 0.15100 || 0.15331 || 0.15115 || 0.15064 || 0.14938 || 0.15913 || 0.16276 || 0.15220 | Ave time 0.15436
Rev Sort| 0.14584 || 0.14345 || 0.15476 || 0.14451 || 0.14696 || 0.14280 || 0.14585 || 0.14578 || 0.14543 || 0.14466 | Ave time 0.14601

The size is n = 100,000

Random | 14.51883 || 14.84136 || 14.62644 || 14.87892 || 14.51592 || 14.65102 || 15.13672 || 14.34450 || 14.47708 || 14.25474 | Ave
time 14.62455
Sort | 15.30872 || 15.37339 || 16.07220 || 15.41428 || 15.47302 || 15.46317 || 15.64557 || 15.47180 || 15.50572 || 15.45468 | Ave
time 15.51825
Rev Sort| 14.97751 || 14.71690 || 14.73341 || 14.88866 || 14.92968 || 14.86244 || 14.86397 || 14.78319 || 14.79145 || 14.72093 | Ave
time 14.82682

The Algorithm is Bubble Sort

The size is n = 10

Random | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000

The size is n = 100

Random | 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 | Ave time 0.00004
Sort | 0.00002 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00002 || 0.00001 || 0.00002 || 0.00001 | Ave time 0.00001
Rev Sort| 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 || 0.00005 | Ave time 0.00005

The size is n = 1,000

Random | 0.00352 || 0.00372 || 0.00381 || 0.00385 || 0.00386 || 0.00388 || 0.00400 || 0.00393 || 0.00396 || 0.00385 | Ave time 0.00384
Sort | 0.00148 || 0.00158 || 0.00155 || 0.00161 || 0.00164 || 0.00161 || 0.00161 || 0.00162 || 0.00163 || 0.00159 | Ave time 0.00159
Rev Sort| 0.00530 || 0.00531 || 0.00517 || 0.00527 || 0.00519 || 0.00511 || 0.00503 || 0.00506 || 0.00507 || 0.00516 | Ave time 0.00517

The size is n = 10,000

Random | 0.40165 || 0.40416 || 0.39742 || 0.39031 || 0.39009 || 0.39099 || 0.38995 || 0.38540 || 0.38500 || 0.38314 | Ave time 0.39181
Sort | 0.14726 || 0.14619 || 0.14293 || 0.14320 || 0.14815 || 0.14723 || 0.15032 || 0.14645 || 0.14194 || 0.14297 | Ave time 0.14566
Rev Sort| 0.44707 || 0.47002 || 0.47052 || 0.46855 || 0.47564 || 0.46874 || 0.46214 || 0.46876 || 0.44750 || 0.46737 | Ave time 0.46463

The size is n = 100,000

Random | 40.47713 || 40.54251 || 42.70640 || 41.61438 || 41.46084 || 40.82126 || 41.74596 || 41.78173 || 41.97008 || 42.17054 | Ave
time 41.52908
Sort | 15.24798 || 14.77121 || 14.74134 || 15.36633 || 15.78635 || 15.27214 || 16.11941 || 16.03037 || 16.33182 || 15.75078 | Ave
time 15.54177
Rev Sort| 46.50977 || 46.56820 || 45.82230 || 46.08293 || 45.34115 || 46.05150 || 46.57388 || 46.16383 || 46.33797 || 46.36267 | Ave
time 46.18142

The Algorithm is Insertion Sort

The size is n = 10

Random | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000

The size is n = 100

Random | 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00002 || 0.00001 || 0.00002 | Ave time 0.00001
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00008 || 0.00003 || 0.00003 || 0.00003 || 0.00003 || 0.00003 || 0.00003 || 0.00003 || 0.00003 || 0.00003 | Ave time 0.00003

The size is n = 1,000

Random | 0.00126 || 0.00130 || 0.00129 || 0.00128 || 0.00123 || 0.00126 || 0.00133 || 0.00129 || 0.00124 || 0.00133 | Ave time 0.00128
Sort | 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00002 || 0.00001 | Ave time 0.00001
Rev Sort| 0.00247 || 0.00251 || 0.00266 || 0.00265 || 0.00255 || 0.00263 || 0.00271 || 0.00268 || 0.00264 || 0.00264 | Ave time 0.00261

The size is n = 10,000

Random | 0.12870 || 0.12554 || 0.12678 || 0.13069 || 0.13087 || 0.13028 || 0.12771 || 0.12879 || 0.12564 || 0.12757 | Ave time 0.12826
Sort | 0.00005 || 0.00006 || 0.00005 || 0.00005 || 0.00010 || 0.00006 || 0.00007 || 0.00006 || 0.00005 || 0.00005 | Ave time 0.00006
Rev Sort| 0.25537 || 0.25270 || 0.24984 || 0.25360 || 0.25192 || 0.25254 || 0.25927 || 0.26236 || 0.26786 || 0.26015 | Ave time 0.25656

The size is n = 100,000

Random | 13.06001 || 13.24200 || 13.08957 || 12.77996 || 12.80002 || 12.78070 || 12.97997 || 13.09355 || 13.13799 || 13.28603 | Ave
time 13.02498
Sort | 0.00060 || 0.00056 || 0.00055 || 0.00060 || 0.00056 || 0.00055 || 0.00061 || 0.00057 || 0.00057 || 0.00054 | Ave time 0.00057
Rev Sort| 26.28369 || 26.50106 || 26.31833 || 26.32190 || 26.25996 || 26.01793 || 25.71379 || 26.14532 || 26.34471 || 26.56936 | Ave
time 26.24760

The Algorithm is Merge Sort

The size is n = 10

Random | 0.00033 || 0.00000 || 0.00001 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00004
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000

The size is n = 100

Random | 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 | Ave time 0.00004
Sort | 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00005 || 0.00004 || 0.00004 || 0.00004 | Ave time 0.00004
Rev Sort| 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00005 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 | Ave time 0.00004

The size is n = 1,000

Random | 0.00049 || 0.00044 || 0.00047 || 0.00044 || 0.00045 || 0.00045 || 0.00048 || 0.00046 || 0.00046 || 0.00045 | Ave time 0.00046
Sort | 0.00040 || 0.00042 || 0.00040 || 0.00040 || 0.00040 || 0.00040 || 0.00044 || 0.00041 || 0.00039 || 0.00042 | Ave time 0.00041
Rev Sort| 0.00044 || 0.00042 || 0.00040 || 0.00044 || 0.00047 || 0.00042 || 0.00041 || 0.00040 || 0.00041 || 0.00047 | Ave time 0.00043

The size is n = 10,000

Random | 0.00584 || 0.00550 || 0.00528 || 0.00532 || 0.00534 || 0.00512 || 0.00524 || 0.00535 || 0.00534 || 0.00533 | Ave time 0.00537
Sort | 0.00488 || 0.00473 || 0.00508 || 0.00495 || 0.00489 || 0.00481 || 0.00484 || 0.00477 || 0.00530 || 0.00479 | Ave time 0.00490
Rev Sort| 0.00483 || 0.00483 || 0.00509 || 0.00471 || 0.00479 || 0.00477 || 0.00584 || 0.00486 || 0.00495 || 0.00486 | Ave time 0.00495

The size is n = 100,000

Random | 0.05972 || 0.05825 || 0.05762 || 0.05732 || 0.05687 || 0.05806 || 0.05699 || 0.05712 || 0.05735 || 0.05740 | Ave time 0.05767
Sort | 0.05129 || 0.05292 || 0.08950 || 0.07030 || 0.06879 || 0.07499 || 0.06891 || 0.05561 || 0.05911 || 0.06654 | Ave time 0.06580
Rev Sort| 0.06772 || 0.07321 || 0.06559 || 0.05533 || 0.05174 || 0.05335 || 0.05128 || 0.05277 || 0.05389 || 0.05148 | Ave time 0.05764

The size is n = 1,000,000

Random | 0.06014 || 0.05716 || 0.05606 || 0.05525 || 0.05926 || 0.05674 || 0.05581 || 0.05572 || 0.05854 || 0.05648 | Ave time 0.05712
Sort | 0.04958 || 0.04904 || 0.05056 || 0.04988 || 0.04900 || 0.04887 || 0.04981 || 0.04993 || 0.05018 || 0.05014 | Ave time 0.04970
Rev Sort| 0.04916 || 0.04964 || 0.05009 || 0.04986 || 0.04987 || 0.04920 || 0.05078 || 0.05046 || 0.05048 || 0.05039 | Ave time 0.04999

The size is n = 10,000,000

Random | 0.05754 || 0.05587 || 0.05503 || 0.05570 || 0.05708 || 0.05765 || 0.05822 || 0.05624 || 0.05777 || 0.05739 | Ave time 0.05685
Sort | 0.05065 || 0.05150 || 0.05307 || 0.05132 || 0.05335 || 0.05214 || 0.05066 || 0.07039 || 0.05103 || 0.04976 | Ave time 0.05339
Rev Sort| 0.04977 || 0.05013 || 0.04987 || 0.04896 || 0.04964 || 0.05190 || 0.05154 || 0.05531 || 0.05700 || 0.05545 | Ave time 0.05196

The Algorithm is Quick Sort

The size is n = 10

Random | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000
Sort | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00002 || 0.00000 | Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 | Ave time 0.00000

The size is n = 100

Random | 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 | Ave time 0.00001
Sort | 0.00006 || 0.00002 || 0.00004 || 0.00002 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 | Ave time 0.00002
Rev Sort| 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 | Ave time 0.00001

The size is n = 1,000

Random | 0.00009 || 0.00009 || 0.00008 || 0.00009 || 0.00009 || 0.00008 || 0.00008 || 0.00009 || 0.00009 || 0.00009 | Ave time 0.00009
Sort | 0.00105 || 0.00128 || 0.00099 || 0.00098 || 0.00103 || 0.00134 || 0.00109 || 0.00095 || 0.00099 || 0.00099 | Ave time 0.00107
Rev Sort| 0.00095 || 0.00090 || 0.00099 || 0.00098 || 0.00097 || 0.00098 || 0.00097 || 0.00083 || 0.00097 || 0.00094 | Ave time 0.00095

The size is n = 10,000

Random | 0.00167 || 0.00164 || 0.00169 || 0.00159 || 0.00164 || 0.00158 || 0.00167 || 0.00160 || 0.00173 || 0.00181 | Ave time 0.00166
Sort | 0.10338 || 0.10240 || 0.09591 || 0.09660 || 0.09895 || 0.09826 || 0.10235 || 0.09810 || 0.09678 || 0.09641 | Ave time 0.09891
Rev Sort| 0.09530 || 0.09597 || 0.09293 || 0.09388 || 0.09513 || 0.09490 || 0.09228 || 0.09250 || 0.09364 || 0.09434 | Ave time 0.09409

The size is n = 100,000

Random		0.09376		0.08885		0.08755		0.08318		0.08949		0.09278		0.08870		0.08504		0.08631		0.08111		Ave time	0.08768	
Sort			9.56167		9.51250		9.76871		9.53613		9.42019		9.42608		9.40333		9.66602		9.49868		9.75423		Ave time	9.55475
Rev Sort		9.43502		9.24528		9.27164		9.21503		9.26999		9.41718		9.43153		9.25191		9.25752		9.36688		Ave time	9.31620	

The size is n = 1,000,000

Random		0.08533		0.09914		0.09358		0.08508		0.09385		0.08443		0.08756		0.09816		0.09006		0.09190		Ave time	0.09091	
Sort			9.71200		9.66939		9.67797		9.64013		9.70724		9.55912		9.74867		9.71020		9.62663		9.74093		Ave time	9.67923
Rev Sort		9.45248		9.43423		9.18046		9.39174		9.51551		9.45939		9.31849		9.38091		9.37303		9.31667		Ave time	9.38229	

The size is n = 10,000,000

Random		0.08808		0.08641		0.08725		0.08427		0.08637		0.08310		0.08042		0.08167		0.08747		0.08741		Ave time	0.08524	
Sort			9.54391		9.48495		9.65425		9.56854		9.67175		9.70189		9.71990		9.46026		9.37504		9.32284		Ave time	9.55033
Rev Sort		9.20143		9.17299		8.96845		9.12555		9.45573		9.22369		9.30659		9.28872		9.33586		9.43408		Ave time	9.25131	

Best Algorithms
Time is in seconds

N = 10

Random : Bubble The Average time was 0.00000
Sort : Insertion The Average time was 0.00000
Rev Sort : Bubble The Average time was 0.00000

N = 100

Random : Quick The Average time was 0.00001
Sort : Insertion The Average time was 0.00000
Rev Sort : Quick The Average time was 0.00001

N = 1,000

Random : Quick The Average time was 0.00009
Sort : Insertion The Average time was 0.00001
Rev Sort : Merge The Average time was 0.00043

N = 10,000

Random : Quick The Average time was 0.00166
Sort : Insertion The Average time was 0.00006
Rev Sort : Merge The Average time was 0.00495

N = 100,000

Random : Merge The Average time was 0.05767
Sort : Insertion The Average time was 0.00057
Rev Sort : Merge The Average time was 0.05764

N = 1,000,000

Random : Merge The Average time was 0.05712
Sort : Merge The Average time was 0.04970
Rev Sort : Merge The Average time was 0.04999

N = 10,000,000

Random : Merge The Average time was 0.05685
Sort : Merge The Average time was 0.05339
Rev Sort : Merge The Average time was 0.05196

Welcome to the Sorting Algorithm Test
Time is in seconds

The Algorithm is Selection Sort

The size is n = 10

Random		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Rev Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000

The size is n = 100

Random		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		Ave time	0.00002
Sort		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		0.00002		Ave time	0.00002
Rev Sort		0.00002		0.00002		0.00002		0.00002		0.00002		0.00003		0.00002		0.00002		0.00002		0.00002		Ave time	0.00002

The size is n = 1,000

Random		0.00140		0.00142		0.00144		0.00147		0.00138		0.00142		0.00150		0.00152		0.00143		0.00146		Ave time	0.00144
Sort		0.00158		0.00175		0.00162		0.00158		0.00158		0.00159		0.00171		0.00154		0.00164		0.00169		Ave time	0.00163
Rev Sort		0.00171		0.00173		0.00178		0.00174		0.00169		0.00198		0.00170		0.00165		0.00162		0.00160		Ave time	0.00172

The size is n = 10,000

Random		0.14606		0.15251		0.14156		0.13945		0.13978		0.13841		0.14176		0.18035		0.13899		0.13892		Ave time	0.14578
Sort		0.15750		0.15657		0.15100		0.15331		0.15115		0.15064		0.14938		0.15913		0.16276		0.15220		Ave time	0.15436
Rev Sort		0.14584		0.14345		0.15476		0.14451		0.14696		0.14280		0.14585		0.14578		0.14543		0.14466		Ave time	0.14601

The size is n = 100,000

Random		14.51883		14.84136		14.62644		14.87892		14.51592		14.65102		15.13672		14.34450		14.47708		14.25474		Ave time	14.62455
Sort		15.30872		15.37339		16.07220		15.41428		15.47302		15.46317		15.64557		15.47180		15.50572		15.45468		Ave time	15.51825
Rev Sort		14.97751		14.71690		14.73341		14.88866		14.92968		14.86244		14.86397		14.78319		14.79145		14.72093		Ave time	14.82682

The Algorithm is Bubble Sort

The size is n = 10

Random		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Rev Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000

The size is n = 100

Random		0.00004		0.00004		0.00004		0.00004		0.00004		0.00004		0.00004		0.00004		0.00004		0.00004		Ave time	0.00004
Sort		0.00002		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00002		0.00001		0.00002		Ave time	0.00001
Rev Sort		0.00005		0.00005		0.00005		0.00005		0.00005		0.00005		0.00005		0.00005		0.00005		0.00005		Ave time	0.00005

The size is n = 1,000

Random		0.00352		0.00372		0.00381		0.00385		0.00386		0.00388		0.00400		0.00393		0.00396		0.00385		Ave time	0.00384
Sort		0.00148		0.00158		0.00155		0.00161		0.00164		0.00161		0.00161		0.00162		0.00163		0.00159		Ave time	0.00159
Rev Sort		0.00530		0.00531		0.00517		0.00527		0.00519		0.00511		0.00503		0.00506		0.00507		0.00516		Ave time	0.00517

The size is n = 10,000

Random		0.40165		0.40416		0.39742		0.39031		0.39009		0.39099		0.38995		0.38540		0.38500		0.38314		Ave time	0.39181
Sort		0.14726		0.14619		0.14293		0.14320		0.14815		0.14723		0.15032		0.14645		0.14194		0.14297		Ave time	0.14566
Rev Sort		0.44707		0.47002		0.47052		0.46855		0.47564		0.46874		0.46214		0.46876		0.44750		0.46737		Ave time	0.46463

The size is n = 100,000

Random		40.47713		40.54251		42.70640		41.61438		41.46084		40.82126		41.74596		41.78173		41.97008		42.17054		Ave time	41.52908
Sort		15.24798		14.77121		14.74134		15.36633		15.78635		15.27214		16.11941		16.03037		16.33182		15.75078		Ave time	15.54177
Rev Sort		46.50977		46.56820		45.82230		46.08293		45.34115		46.05150		46.57388		46.16383		46.33797		46.36267		Ave time	46.18142

The Algorithm is Insertion Sort

The size is n = 10

Random		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Rev Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000

The size is n = 100

Random		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00002		0.00001		0.00002		Ave time	0.00001
Sort		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		0.00000		Ave time	0.00000
Rev Sort		0.00008		0.00003		0.00003		0.00003		0.00003		0.00003		0.00003		0.00003		0.00003		0.00003		Ave time	0.00003

The size is n = 1,000

Random		0.00126		0.00130		0.00129		0.00128		0.00123		0.00126		0.00133		0.00129		0.00124		0.00133		Ave time	0.00128
Sort		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00001		0.00002		0.00001		Ave time	0.00001
Rev Sort		0.00247		0.00251		0.00266		0.00265		0.00255		0.00263		0.00271		0.00268		0.00264		0.00264		Ave time	0.00261

The size is n = 10,000

Random		0.12870		0.12554		0.12678		0.13069		0.13087		0.13028		0.12771		0.12879		0.12564		0.12757		Ave time	0.12826
Sort		0.00005		0.00006		0.00005		0.00005		0.00010		0.00006		0.00007		0.00006		0.00005		0.00005		Ave time	0.00006
Rev Sort		0.25537		0.25270		0.24984		0.25360		0.25192		0.25254		0.25927		0.26236		0.26786		0.26015		Ave time	0.25656

The size is n = 100,000

Random		13.06001		13.24200		13.08957		12.77996		12.80002		12.78070		12.97997		13.09355		13.13799		13.28603		Ave time	13.02498
Sort		0.00060		0.00056		0.00055		0.00060		0.00056		0.00055		0.00061		0.00057		0.00057		0.00054		Ave time	0.00057
Rev Sort		26.28369		26.50106		26.31833		26.32190		26.25996		26.01793		25.71379		26.14532		26.34471		26.56936		Ave time	26.024760

```
The Algorithm is Merge Sort

The size is n = 10
Random | 0.00033 || 0.00000 || 0.00001 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || Ave time 0.00004
Sort   | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || Ave time 0.00000

The size is n = 100
Random | 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || Ave time 0.00004
Sort   | 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00005 || 0.00004 || 0.00004 || 0.00004 || Ave time 0.00004
Rev Sort| 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00005 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || 0.00004 || Ave time 0.00004

The size is n = 1,000
Random | 0.00049 || 0.00044 || 0.00047 || 0.00044 || 0.00045 || 0.00045 || 0.00048 || 0.00046 || 0.00046 || 0.00046 || 0.00045 || Ave time 0.00046
Sort   | 0.00040 || 0.00042 || 0.00040 || 0.00040 || 0.00040 || 0.00040 || 0.00044 || 0.00041 || 0.00039 || 0.00039 || 0.00042 || Ave time 0.00041
Rev Sort| 0.00044 || 0.00042 || 0.00040 || 0.00044 || 0.00047 || 0.00042 || 0.00041 || 0.00040 || 0.00041 || 0.00041 || 0.00047 || Ave time 0.00043

The size is n = 10,000
Random | 0.00584 || 0.00550 || 0.00528 || 0.00532 || 0.00534 || 0.00512 || 0.00524 || 0.00535 || 0.00534 || 0.00533 || 0.00533 || Ave time 0.00537
Sort   | 0.00488 || 0.00473 || 0.00508 || 0.00495 || 0.00489 || 0.00481 || 0.00484 || 0.00477 || 0.00530 || 0.00479 || 0.00479 || Ave time 0.00490
Rev Sort| 0.00483 || 0.00483 || 0.00509 || 0.00471 || 0.00479 || 0.00477 || 0.00584 || 0.00486 || 0.00495 || 0.00486 || 0.00486 || Ave time 0.00495

The size is n = 100,000
Random | 0.05972 || 0.05825 || 0.05762 || 0.05732 || 0.05687 || 0.05806 || 0.05699 || 0.05712 || 0.05735 || 0.05740 || 0.05767 || Ave time 0.05767
Sort   | 0.05129 || 0.05292 || 0.08950 || 0.07030 || 0.06879 || 0.07499 || 0.06891 || 0.05561 || 0.05911 || 0.06654 || 0.06580 || Ave time 0.06580
Rev Sort| 0.06772 || 0.07321 || 0.06559 || 0.05533 || 0.05174 || 0.05335 || 0.05128 || 0.05277 || 0.05389 || 0.05148 || 0.05764 || Ave time 0.05764

The size is n = 1,000,000
Random | 0.06014 || 0.05716 || 0.05606 || 0.05525 || 0.05926 || 0.05674 || 0.05581 || 0.05572 || 0.05854 || 0.05648 || 0.05712 || Ave time 0.05712
Sort   | 0.04958 || 0.04904 || 0.05056 || 0.04988 || 0.04900 || 0.04887 || 0.04981 || 0.04993 || 0.05018 || 0.05014 || 0.04970 || Ave time 0.04970
Rev Sort| 0.04916 || 0.04964 || 0.05009 || 0.04986 || 0.04987 || 0.04920 || 0.05078 || 0.05046 || 0.05048 || 0.05039 || 0.04999 || Ave time 0.04999

The size is n = 10,000,000
Random | 0.05754 || 0.05587 || 0.05503 || 0.05570 || 0.05708 || 0.05765 || 0.05822 || 0.05624 || 0.05777 || 0.05739 || 0.05685 || Ave time 0.05685
Sort   | 0.05065 || 0.05150 || 0.05307 || 0.05132 || 0.05335 || 0.05214 || 0.05066 || 0.07039 || 0.05103 || 0.04976 || 0.05339 || Ave time 0.05339
Rev Sort| 0.04977 || 0.05013 || 0.04987 || 0.04896 || 0.04964 || 0.05190 || 0.05154 || 0.05531 || 0.05700 || 0.05545 || 0.05196 || Ave time 0.05196
```

```
The Algorithm is Quick Sort

The size is n = 10
Random | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || Ave time 0.00000
Sort   | 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00002 || 0.00000 || Ave time 0.00000
Rev Sort| 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || 0.00000 || Ave time 0.00000

The size is n = 100
Random | 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || Ave time 0.00001
Sort   | 0.00006 || 0.00002 || 0.00004 || 0.00002 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || Ave time 0.00002
Rev Sort| 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || 0.00001 || Ave time 0.00001

The size is n = 1,000
Random | 0.00009 || 0.00009 || 0.00008 || 0.00009 || 0.00009 || 0.00008 || 0.00008 || 0.00009 || 0.00009 || 0.00009 || 0.00009 || Ave time 0.00009
Sort   | 0.00105 || 0.00128 || 0.00099 || 0.00098 || 0.00103 || 0.00134 || 0.00109 || 0.00095 || 0.00099 || 0.00099 || 0.00107 || Ave time 0.00107
Rev Sort| 0.00095 || 0.00090 || 0.00099 || 0.00098 || 0.00097 || 0.00098 || 0.00097 || 0.00083 || 0.00097 || 0.00094 || 0.00095 || Ave time 0.00095

The size is n = 10,000
Random | 0.00167 || 0.00164 || 0.00169 || 0.00159 || 0.00164 || 0.00158 || 0.00167 || 0.00160 || 0.00173 || 0.00181 || 0.00166 || Ave time 0.00166
Sort   | 0.10338 || 0.10240 || 0.09591 || 0.09660 || 0.09895 || 0.09826 || 0.10235 || 0.09810 || 0.09678 || 0.09641 || 0.09891 || Ave time 0.09891
Rev Sort| 0.09530 || 0.09597 || 0.09293 || 0.09388 || 0.09513 || 0.09490 || 0.09228 || 0.09250 || 0.09364 || 0.09434 || 0.09409 || Ave time 0.09409

The size is n = 100,000
Random | 0.09376 || 0.08885 || 0.08755 || 0.08318 || 0.08949 || 0.09278 || 0.08870 || 0.08504 || 0.08631 || 0.08111 || 0.08768 || Ave time 0.08768
Sort   | 9.56167 || 9.51250 || 9.76871 || 9.53613 || 9.42019 || 9.42608 || 9.40333 || 9.66602 || 9.49868 || 9.75423 || 9.55475 || Ave time 9.55475
Rev Sort| 9.43502 || 9.24528 || 9.27164 || 9.21503 || 9.26999 || 9.41718 || 9.43153 || 9.25191 || 9.25752 || 9.36688 || 9.31620 || Ave time 9.31620

The size is n = 1,000,000
Random | 0.08533 || 0.09914 || 0.09358 || 0.08508 || 0.09385 || 0.08443 || 0.08756 || 0.09816 || 0.09006 || 0.09190 || 0.09091 || Ave time 0.09091
Sort   | 9.71200 || 9.66939 || 9.67797 || 9.64013 || 9.70724 || 9.55912 || 9.74867 || 9.71020 || 9.62663 || 9.74093 || 9.67923 || Ave time 9.67923
Rev Sort| 9.45248 || 9.43423 || 9.18046 || 9.39174 || 9.51551 || 9.45939 || 9.31849 || 9.38091 || 9.37303 || 9.31667 || 9.38229 || Ave time 9.38229

The size is n = 10,000,000
Random | 0.08808 || 0.08641 || 0.08725 || 0.08427 || 0.08637 || 0.08310 || 0.08042 || 0.08167 || 0.08747 || 0.08741 || 0.08524 || Ave time 0.08524
Sort   | 9.54391 || 9.48495 || 9.65425 || 9.56854 || 9.67175 || 9.70189 || 9.71990 || 9.46026 || 9.37504 || 9.32284 || 9.55033 || Ave time 9.55033
Rev Sort| 9.20143 || 9.17299 || 8.96845 || 9.12555 || 9.45573 || 9.22369 || 9.30659 || 9.28872 || 9.33586 || 9.43408 || 9.25131 || Ave time 9.25131
```

Best Algorithms
Time is in seconds

N = 10

Random : Bubble The Average time was 0.00000
Sort : Insertion The Average time was 0.00000
Rev Sort : Bubble The Average time was 0.00000

N = 100

Random : Quick The Average time was 0.00001
Sort : Insertion The Average time was 0.00000
Rev Sort : Quick The Average time was 0.00001

N = 1,000

Random : Quick The Average time was 0.00009
Sort : Insertion The Average time was 0.00001
Rev Sort : Merge The Average time was 0.00043

N = 10,000

Random : Quick The Average time was 0.00166
Sort : Insertion The Average time was 0.00006
Rev Sort : Merge The Average time was 0.00495

N = 100,000

Random : Merge The Average time was 0.05767
Sort : Insertion The Average time was 0.00057
Rev Sort : Merge The Average time was 0.05764

N = 1,000,000

Random : Merge The Average time was 0.05712
Sort : Merge The Average time was 0.04970
Rev Sort : Merge The Average time was 0.04999

N = 10,000,000

Random : Merge The Average time was 0.05685
Sort : Merge The Average time was 0.05339
Rev Sort : Merge The Average time was 0.05196