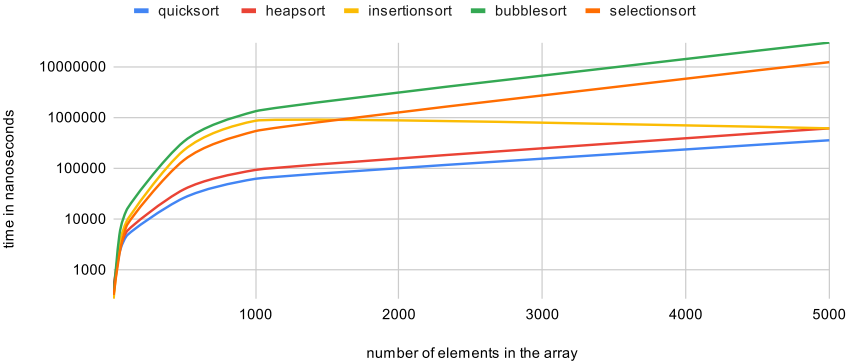


UNSORTED	10	50	100	500	1000	5000
quicksort	400	2100	4630	26110	61970	355010
heapsort	480	2440	5610	38340	92670	609160
insertionsort	270	2990	8920	226180	861080	609160
bubblesort	330	4800	14930	336410	1326160	29801190
selectionsort	320	2010	7250	144280	538910	12253590

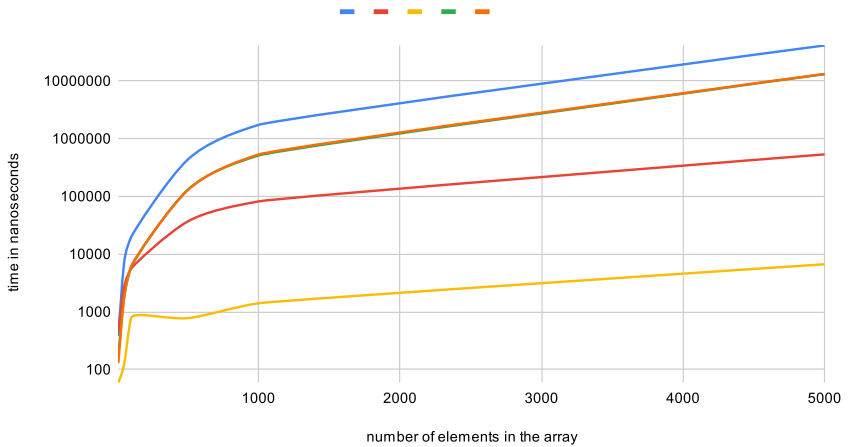
SORTED	10	50	100	500	1000	5000
quicksort	380	6840	19580	434110	1737320	41372950
heapsort	450	2620	5580	36830	82050	536210
insertionsort	60	120	780	780	1410	6690
bubblesort	170	1710	5970	130040	512450	13150990
selectionsort	130	1710	6090	128270	533570	13280250

GRAPH SEARCH	
BFS	1254100
DFS	1343600
A*	599300

Sorting algorithms on unsorted arrays (log scale on y)



Sorting algorithms on sorted arrays (log scale on y)



UNSORTED		10	50	100	500	1000	5000
quicksort 1		400	2000	4300	26000	68500	407500
2		300	2200	4500	25100	53900	324900
3		400	2000	5300	24800	55300	325300
4		400	2100	5300	25500	52600	343100
5		400	2000	4600	24600	54000	321600
6		400	2200	4300	24200	80700	366600
7		500	1900	4000	25500	69800	335700
8		500	2100	5300	27600	58600	387800
9		300	2000	4400	33000	55700	407000
10		400	2500	4300	24800	70600	330600
quicksort avg		400	2100	4630	26110	61970	355010
quicksort median		400	2050	4450	25300	57150	339400
quicksort minimum		300	1900	4000	24200	52600	407500
quicksort maximum		500	2500	5300	33000	80700	407000
heapsort 1		500	2900	6400	41400	93000	566600
2		700	2800	8000	41600	94100	565200
3		500	2000	5800	40300	94200	608900
4		500	1900	9100	41000	115400	566700
5		500	3600	4600	43800	87200	559000
6		400	2700	4400	34600	90100	693800
7		700	1600	4300	28600	81100	632400
8		300	3500	3500	51500	91700	651900
9		400	1500	3600	24700	92400	694300
10		300	1900	6400	35900	87500	552800
heapsort avg		480	2440	5610	38340	92670	609160
heapsort median		500	2350	5200	40650	92050	587800
heapsort minimum		300	1500	3500	24700	81100	694300
heapsort maximum		700	3600	9100	51500	115400	694300
insertionsort 1		300	3600	10700	220900	843400	566600

2	200	3500	8600	219800	833000	565200
3	200	3200	9500	265500	849100	608900
4	200	3000	8400	227500	849500	566700
5	400	2700	8200	221300	907800	559000
6	400	2900	10800	220800	851000	693800
7	200	2700	7900	223900	858100	632400
8	300	2800	8100	220500	927700	651900
9	300	2500	8600	220700	822800	694300
10	200	3000	8400	220900	868400	552800
insertionsort avg	270	2990	8920	226180	861080	609160
insertionsort median	250	2950	8500	220900	850250	587800
insertionsort minimum	200	2500	7900	219800	822800	694300
insertionsort maximum	400	3500	10800	265500	927700	694300
bubblesort 1	400	4700	16500	328200	1238900	29486200
2	300	6000	16400	327600	1459900	29642600
3	500	4900	15200	327600	1245000	29705800
4	300	4100	15300	328400	1250900	29584400
5	200	5100	14100	420100	1251400	29545700
6	400	4000	13100	325800	1249500	29783800
7	400	4200	13100	326900	1408200	29564700
8	300	4100	12900	328300	1251500	30166000
9	200	6200	16400	322000	1518900	30445000
10	300	4700	16300	329200	1387400	30087700
bubblesort avg	330	4800	14930	336410	1326160	29801190
bubblesort median	300	4700	15250	327900	1251450	29674200
bubblesort minimum	200	4000	12900	322000	1238900	30445000
bubblesort maximum	500	6200	16400	420100	1518900	30445000
selectionsort 1	400	2900	8100	133600	503400	12054900
2	400	2400	7900	166800	507000	12486800

3	300	1700	8000	142400	628500	12027700
4	300	1600	7100	168100	500600	12246300
5	500	1600	6400	132800	497800	12253100
6	400	1500	6100	168400	619900	12476300
7	200	3600	6200	136000	495200	12314600
8	200	1600	8800	132100	502300	11840300
9	100	1600	6000	131800	626100	12233000
10	400	1600	7900	130800	508300	12602900
selectionsort avg	320	2010	7250	144280	538910	12253590
selectionsort median	350	1600	7500	134800	505200	12249700
selectionsort minimum	100	1500	6000	130800	495200	12602900
selectionsort maximum	500	3600	8800	168400	628500	12602900
SORTED	10	50	100	500	1000	5000
quicksort 1	300	3000	18200	438700	1669200	42145900
2	400	6300	18400	468100	1844500	41480700
3	400	7400	23000	440500	1754900	41282900
4	500	7500	22200	419400	1702400	41144200
5	400	7400	18300	419700	1760900	41678000
6	400	6600	22800	436400	1796000	41034800
7	400	7600	18100	433100	1808800	41578700
8	400	7600	18100	432000	1651400	41063400
9	300	7600	18300	436100	1707800	41367500
10	300	7400	18400	417100	1677300	40953400
quicksort avg	380	6840	19580	434110	1737320	41372950
quicksort median	400	7400	18350	434600	1731350	41325200
quicksort minimum	300	3000	18100	417100	1651400	42145900
quicksort maximum	500	7600	23000	468100	1844500	41678000

heapsort 1	500	2800	6300	37200	81200	490400
2	400	2400	6300	37000	86700	617100
3	600	3400	5500	38500	82000	610000
4	300	3200	4900	37800	80700	518300
5	400	3100	6100	37300	82800	495100
6	600	2300	4900	32300	82800	513000
7	400	1900	4100	36500	80600	503600
8	600	1700	6200	38400	79800	598400
9	400	3600	5500	37300	80900	494400
10	300	1800	6000	36000	83000	521800
heapsort avg	450	2620	5580	36830	82050	536210
heapsort median	400	2600	5750	37250	81600	515650
heapsort minimum	300	1700	4100	32300	79800	617100
heapsort maximum	600	3600	6300	38500	86700	617100
insertionsort 1	100	100	700	700	1300	6200
2	100	100	700	700	1400	7800
3	100	100	700	700	1700	6200
4	100	100	900	900	1600	6200
5	0	100	800	800	1300	6100
6	100	100	900	900	1600	8000
7	100	200	800	800	1300	7800
8	0	100	800	800	1300	6200
9	0	200	700	700	1400	6200
10	0	100	800	800	1200	6200
insertionsort avg	60	120	780	780	1410	6690
insertionsort median	100	100	800	800	1350	6200
insertionsort minimum	0	100	700	700	1200	8000
insertionsort maximum	100	200	900	900	1700	8000
bubblesort 1	300	2700	5700	128600	514800	13041900

2	100	1600	7300	128800	512800	13057100
3	300	1800	5500	129000	511700	13172400
4	200	1700	5800	130000	511900	13303000
5	200	1600	5900	129400	511200	13270500
6	100	1500	6900	131900	513700	13341500
7	100	1500	5700	129800	511800	12882700
8	100	1400	5600	133400	511600	13274300
9	200	1700	5600	129600	513000	12973000
10	100	1600	5700	129900	512000	13193500
bubblesort avg	170	1710	5970	130040	512450	13150990
bubblesort median	150	1600	5700	129700	511950	13182950
bubblesort minimum	100	1400	5500	128600	511200	13341500
bubblesort maximum	300	1800	7300	133400	513700	13341500
selectionsort 1	200	1700	5700	128200	509100	12973100
2	200	1700	5700	127700	602800	14382200
3	100	1800	7300	131900	508600	13009900
4	200	1700	5700	127500	512800	12894600
5	100	1600	5600	128100	509700	12965500
6	100	1900	7000	128000	509000	13488300
7	100	1600	7000	128200	509500	13042800
8	100	1700	5700	127600	508300	13857700
9	100	1800	5600	127600	635000	13152800
10	100	1600	5600	127900	530900	13035600
selectionsort avg	130	1710	6090	128270	533570	13280250
selectionsort median	100	1700	5700	127950	509600	13039200
selectionsort minimum	100	1600	5600	127500	508300	14382200
selectionsort maximum	200	1900	7300	131900	635000	14382200