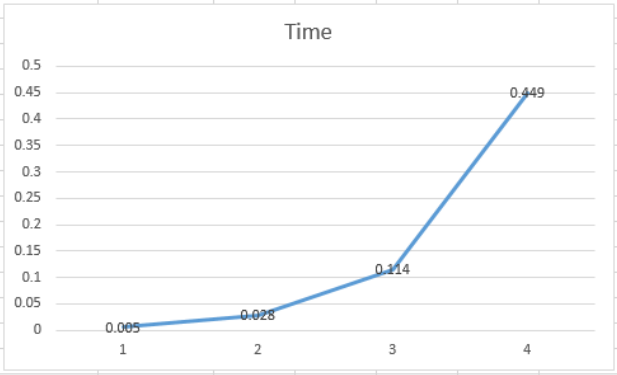
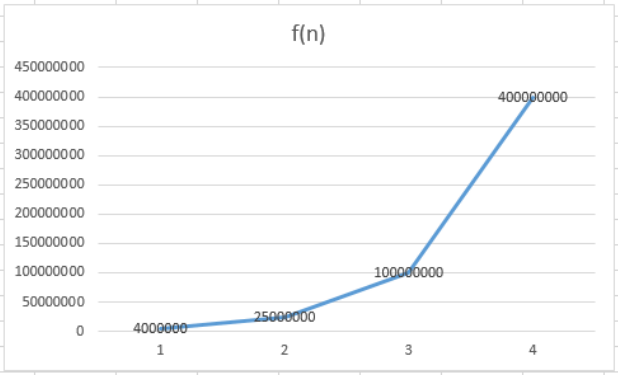
Algorithm/size	experiment	2000	5000	10000	20000
Selection sort	$F(n)=O(n^2)$	4000000	25000000	100000000	400000000
	Calculated-time	----------	0.031	0.112	0.456
	#1	0.005	0.028	0.114	0.449
	#2	0.004	0.03	0.113	0.453
Counting Sort	F(n)=O(n+m)	2100	5100	10100	20100
	Calculated-time	----------	0	0	0
	#1	0	0	0	0.001
	#2	0	0	0	0
Insertion Sort	$F(n)= O(n^2)$	4000000	25000000	100000000	400000000
	Calculated-time	----------	0.025	0.1	0.416
	#1	0.004	0.025	0.104	0.411
	#2	0.004	0.025	0.104	0.417
Merge Sort	F(n)=O(nlogn)	6600	18500	40000	86000
	Calculated-time	----------	0.0056	0.013	0.021
	#1	0.002	0.006	0.01	0.029
	#2	0.002	0.006	0.011	0.024
Quick Sort	$F(n)= O(n^2)$	4000000	25000000	100000000	400000000
	Calculated-time	----------	0.006	0.008	0.012
	#1	0.001	0.002	0.003	0.008
	#2	0	0.001	0.003	0.014
Heap Sort	F(n)=O(nlogn)	6600	18500	40000	86000
	Calculated-time	----------	0	0.004	0.0043
	#1	0	0.002	0.002	0.003
	#2	0	0.001	0.002	0.004

Selection Sort

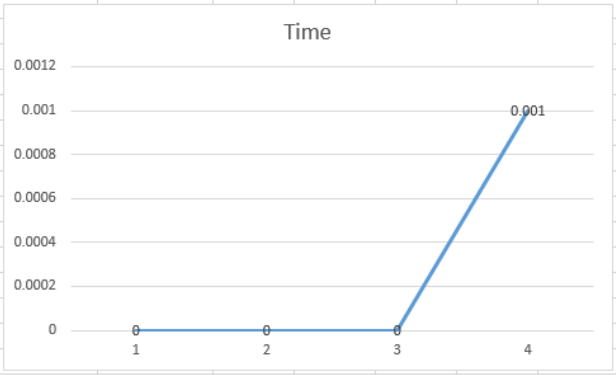
size	time	f(n)
2000	0.005	4000000
5000	0.028	25000000
10000	0.114	100000000
20000	0.449	400000000

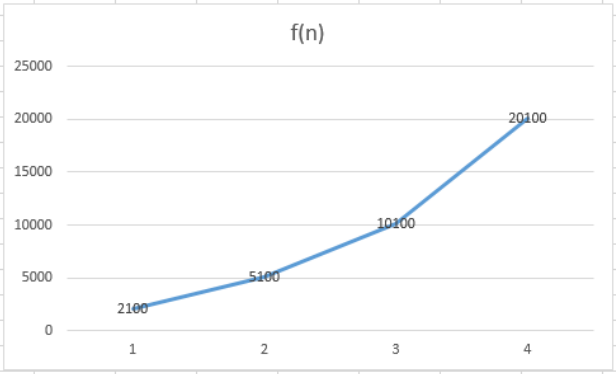




Counting Sort

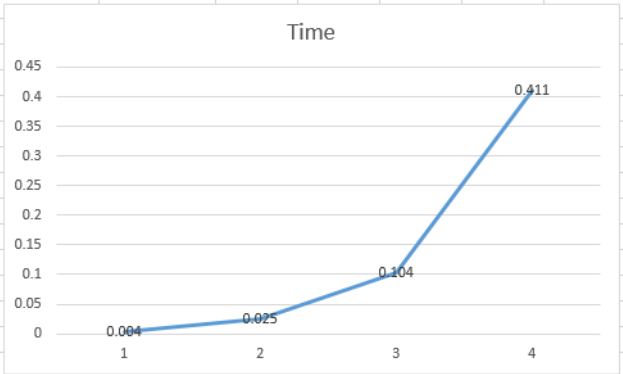
size	time	f(n)
2000	0	2100
5000	0	5100
10000	0	10100
20000	0.001	20100

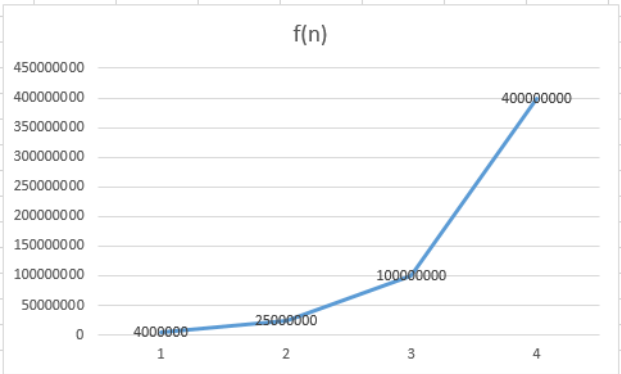




Insertion Sort

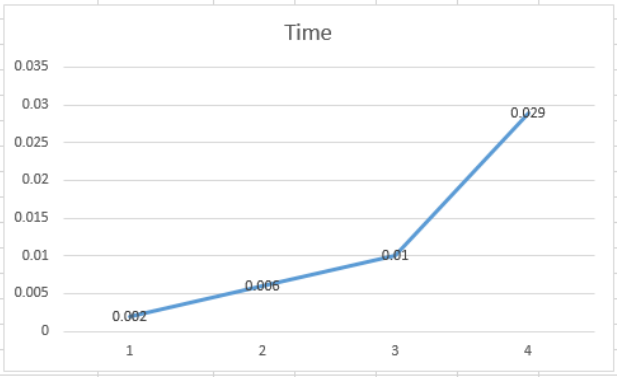
size	time	f(n)
2000	0.004	4000000
5000	0.025	25000000
10000	0.104	100000000
20000	0.411	400000000

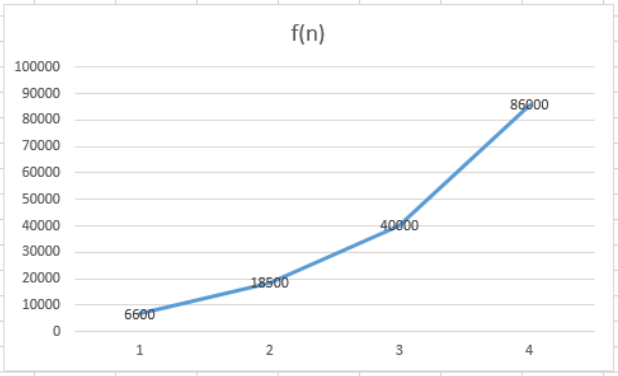




Merge Sort

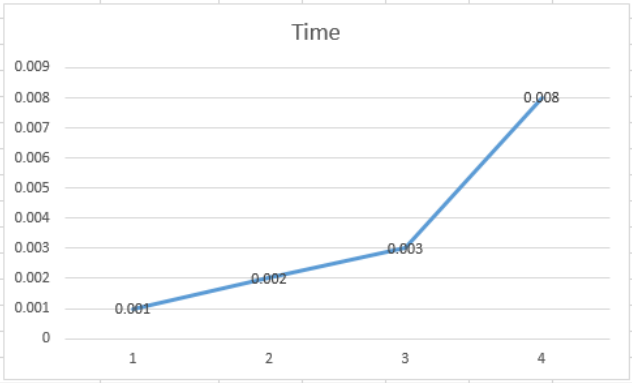
size	time	f(n)
2000	0.002	6600
5000	0.006	18500
10000	0.01	40000
20000	0.029	86000

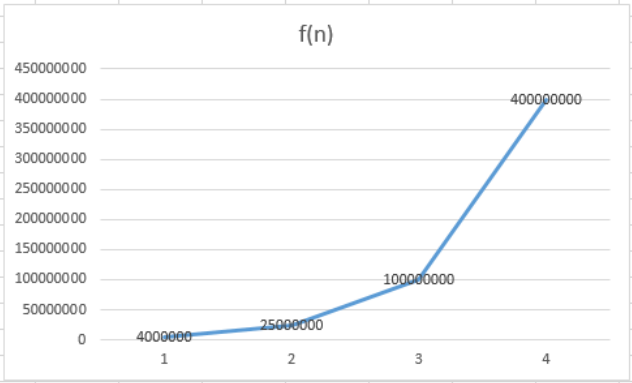




Quick Sort

size	time	f(n)
2000	0.001	4000000
5000	0.002	25000000
10000	0.003	100000000
20000	0.008	400000000





Heap Sort

size	time	f(n)
2000	0	6600
5000	0.002	18500
10000	0.002	40000
20000	0.003	86000