

Comparison Between the efficiency of Linear and Binary Search

BASED ON **COUNTING** STATEMENTS & EXECUTION **TIME**

No. of Input	Linear Search	Time	Binary Search	Time
10	10	0.000	20	0.000
20	12	0.000	77	0.000
30	9	0.000	235	0.000
40	17	0.000	396	0.000
50	50	0.000	651	0.000
60	10	0.000	799	0.000
70	42	0.000	1242	0.000
80	80	0.000	1714	0.000
90	90	0.000	1896	0.000
100	98	0.000	2136	0.000

AVG. ITERATION FOR **BINARY SEARCH** LOOP FOR EACH CASE (EXCEPT SORT LOOP): **4.700000 ~ 5**

No. of Input	Linear Search	Time	Binary Search	Time
100	44	0.000	2599	0.000
200	195	0.000	9831	0.001
300	253	0.000	21703	0.001
400	182	0.000	37397	0.001
500	195	0.000	60592	0.002
600	600	0.000	88652	0.004
700	407	0.000	123325	0.007
800	183	0.000	158363	0.011
900	229	0.000	205919	0.012
1000	1000	0.000	244559	0.013

AVG. ITERATION FOR **BINARY SEARCH** LOOP FOR EACH CASE (EXCEPT SORT LOOP): **7.300000 ~ 8**