

5. Quick Sort, $O(n \log_2(n))$

13	72	0	43	28	86	63	50	3	29	36	40	<- Original Array									
13	36	0	29	28	3	40	50	86	43	72	63										
0	3	13	29	28	36	40	50	43	63	72	86										
0	3	13	29	28	36	40	43	50	63	72	86										
0	3	13	28	29	36	40	43	50	63	72	86										

6. Sequential Search, $O(n)$

40	63	64	2	87	62	45	66	99	30	31	57
----	----	----	---	----	----	----	----	----	----	----	----

Looking for 62

40
63
64
2
87
62

7. Binary Search, $O(\log_2(n))$

2	30	31	40	45	57	62	63	64	66	87	99
---	----	----	----	----	----	----	----	----	----	----	----

Looking for 99

57	Low: 0, 6, 9, 11
64	High: 11
87	Mid (Low + High) / 2: 5, 8, 10, 11
99	Target: 99

Looking for 52

57	Low: 0, 3, 4, 5
31	High: 11, 4

[illegible]