Linear Search

12	24	39	57	66	68	75	90	98
0	1	2	3	4	5	6	7	8

Target = 66

Process :

1. Compare index - 0 (12) to target (66) = not found
2. " " - 1 (24) " (66) = not found
3. " " - 2 (39) " (66) = not found
4. " " - 3 (57) " (66) = not found
5. " " - 4 (66) " (66) = Found ! //

Binary Search

Left				Mid		New-mid		Right
12	24	39	57	66	68	75	90	98
0	1	2	3	4	5	6	7	8

Target = 68

Process

1. Compare Mid (66) with target (68) = not found
2. 66 < 68, so search right : set left = mid + 1 = 5
3. set mid 5 + 8 = 13/2 = 6
4. 75 > 68, search left
5. ~~Fou~~ found ! //

Interpolation Search

12	24	39	57	66	68	75	90	98
0	1	2	3	4	5	6	7	8
Low		Pos						High

target = 39

Process

1. Find Position $= low + \frac{(key - arr[low]) \times (high - low)}{arr[High] - arr[low]}$

$= 0 + \frac{(39-12) \times (8-0)}{98-12} = 2,51 \approx 2$ (index)

2. Compare Pos (39) with target (39) = found ! //