Average case - $O(n^2)$

Worst case - $O(n^2)$ Space complexity = $O(1)$

Total No. of swaps = 6,,

15 find the index of the target value 10 using binary search from the following list of elements.

[2, 4, 6, 8, 10, 12, 14, 16, 18, 20]

Sol Given

0	1	2	3	4	5	6	7	8	9
2	4	6	8	10	12	14	16	18	20

$M = \frac{l+h}{2} = \frac{0+9}{2} = 4.5 \simeq \lceil 4.5 \rceil = 4$

0	1	2	3	4	5	6	7	8	9
2	4	6	8	10	12	14	16	18	20

mid

Target = 10

a[mid] = Target

∴ 10 = 10

∴ Target found,,