

will make. Algo 2 is a cunning person. It will match the first and last element and match it first. It made one comparison For a size of 10 array , As well as for an array of size 100. It is making the same comparison for all sizes of array.

The midpoint between 1 and 100 will be 50. Then you will discard this entire array that has elements greater than 50. If there are an even number of elements here, there are 2-2-4, 2-6 elements. So the midpoint can be both 7 or 9. So I can take either of them as midpoint. You will keep halving an array until it gets over; In the worst case, you will find the element. You can halve 8 once, and it will become 4. 8 has become 3. How many times can you divide 16 ? You can divide 16 once, twice, twice and four times. How will you divide 1 ? You ca n't halve 1 ? How many comparisons will you make ? For 100