

## Finding Number of Items Between Two Integer Numbers

1. Call following algorithm for both numbers.
2. Return the absolute value of subtraction of indexes of numbers.

## Recursive Algorithm for Finding Index of a Number in an Array

1. Assign middle to half of the sum of the first and last index.
2. Compare the first index and last index.
3. **if** first index is greater than or equal to last index
4.     **if** the element at the middle of the array is greater than or equal to number
5.         return middle
6.     **else**
7.         return middle + 1
8. Compare the element at the middle of array with number.
9. **if** the number is equal to element at the middle of the array
10.     return middle
11. **else if** the number is less than the element at the middle of the array
12.     Recursively continue with left half subarray.
13. **else** // The number is bigger than the element at the middle of the array
14.     Recursively continue with right half subarray.