

BINARY SEARCH			<div> <div> <div></div><div></div><div></div><div></div> </div> <div> <div></div><div></div> </div> <div> <div></div><div></div><div></div><div></div><div></div><div></div> </div> </div> <div> <div>Array</div> <div>Divide and Conquer</div> </div>
Best	Average	Worst	
$O(1)$	$O(\log n)$	$O(\log n)$	

search (A, t)

1. low = 0

2. high = n - 1

3. while (low ≤ high) do

4. ix = (low + high)/2

5. if (t = A[ix]) then

6. return true

7. else if (t < A[ix]) then

8. high = ix - 1

9. else low = ix + 1

10. return false

end

search (A, 11)

low

ix

high

first pass

1

4

8

9

11

15

17

low

ix

high

second pass

1

4

8

9

11

15

17

low

ix

high

third pass

1

4

8

9

11

15

17

explored elements