

# OCR Computer Science A Level

## 2.3.1 Searching Algorithms

### Flashcards



Which searching algorithm requires data to be sorted before starting?



Which searching algorithm requires data to be sorted before starting?

Binary search



# Which example shows linear search?

A

3	5	4	1	2
3	5	4	1	2
3	5	4	1	2
3	5	4	1	2
3	5	4	1	2

B

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

C

3	5	4	1	2
3	5	4	1	2
3	5	4	1	2



# Which example showed linear search?

C



Perform a linear search for  
9 on the values:

1, 3, 6, 7, 9, 12, 15



# Perform a linear search for 9 on the values

1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15



What is the time complexity  
of binary search?





What is the time complexity of binary search?

$O(\log n)$



# Which example shows binary search?

A

3	5	4	1	2
3	5	4	1	2
3	5	4	1	2
3	5	4	1	2
3	5	4	1	2

B

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

C

3	5	4	1	2
3	5	4	1	2
3	5	4	1	2



Which example showed binary search?

B



Perform a binary search for  
6 on the values:

1, 3, 6, 7, 9, 12, 15



# Perform a binary search for 6 on the values

1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15
1	3	6	7	9	12	15



Which searching algorithm has a time complexity of  $O(n)$ ?



Which searching algorithm has a time complexity of  $O(n)$ ?

Linear search

