

OCR Computer Science AS Level

2.3.1 Sorting Algorithms

Flashcards



Which sorting algorithm makes comparisons and swaps between pairs of elements?



Which sorting algorithm makes comparisons and swaps between pairs of elements?

Bubble sort



Which example shows bubble sort?

A

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

B

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

C

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



Which example showed bubble sort?

B



Which example shows insertion sort?

A

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

B

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

C

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



Which example showed bubble sort?

C



Perform the first pass of
bubble sort on the values:

4, 2, 3, 5, 1



Perform the first pass of bubble sort on the values
4, 2, 3, 5, 1.

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



Which sorting algorithm can be improved by adding a flag to record whether or not a swap has occurred?



Which sorting algorithm can be improved by adding a flag to record whether or not a swap has occurred?

Bubble sort



Perform insertion sort on the values:

4, 2, 3, 5, 1



Perform insertion sort on the values 4, 2, 3, 5, 1

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



In which sorting algorithm is the largest element in place after the first pass?



In which sorting algorithm is the largest element in place after the first pass?

Bubble sort

