

QUIZ

What is the big o runtime of bubble sort?

Exponential - $O(2^N)$

Quadratic - $O(N^2)$



Correct! Bubble sort is implemented with nested loops that iterate through the elements of the input array.

Linear - $O(N)$

Constant - $O(1)$

Bubble sort is the most efficient of the comparison sorting algorithms.

True.

False.



Correct! Bubble sort is a good introduction to algorithmic thinking and sorting in particular, but it is not the most efficient.

An input list that is mostly ordered will require fewer swaps than an input list that is mostly unordered.

True.



Correct! Bubble sort will only make a swap if an element is out of order.

False.

Bubble sort orders an input array through a series of comparisons and swaps.

False.

True.



Correct! After each pass of the inner loop, the next largest value will be correctly placed via swapping elements.

If no copy is made of the input list then bubble sort will alter the original array to produce the sorted data-set.

False.

True.



Correct! Bubble sort sorts the input array by swapping values within the original array unless a copy is made at the beginning of the algorithm.