

Computers are often compared in terms of the number of \_\_\_\_ they can crank out.s

- ☒ flops-

Which of the following is NOT an extremely desirable attribute of an algorithm?

- ☒ abstraction

**CORRECT**

See: Ch. 3: The Efficiency of Algorithms, Section - Attributes of Algorithms

A(n) \_\_\_\_ algorithm to solve the problem of routing an email message along the shortest possible path through intermediate computers from your mail server to the destination mail server would examine all possible paths to the destination and then use the shortest one.

- ☒ exponential

\_\_\_\_ is the algorithmic equivalence of style.

- ☒ Elegance

Sequential search is an order-n algorithm in the \_\_\_\_.

- ☒ average and worst case

If there are n nodes in a graph, then a Hamiltonian circuit (if it exists) must have \_\_\_\_ links.

- ☒ n

An algorithm that does  $cn^2$  work for any constant c is order of magnitude \_\_\_\_.

- ☒  $n^2$

The \_\_\_\_ search algorithm is more efficient than the \_\_\_\_ search algorithm but it works only when the search list is already sorted.

- ☒ binary, sequential

\_\_\_\_ is the term to describe an algorithm's careful use of resources.

- ☒ Efficiency

The study of the efficiency of algorithms is called the \_\_\_\_ of algorithms.

- ☒ analysis

Problems for which no known polynomial solution algorithm exists are sometimes approached via \_\_\_\_ algorithms.

- ☒ approximation

A \_\_\_\_ repeatedly compares a value being searched for against a name in a list. This process continues until the desired value is found or the list is exhausted.

- ☒ sequential search

The \_\_\_\_ algorithm does the same amount of work no matter how the numbers are initially arranged.

- ☒ selection sort

Solvable problems for which no polynomially bounded algorithms exist are called \_\_\_\_.

- ☒ intractable

Given the data cleanup problem of removing 0 values from a data set, the \_\_\_\_ algorithm scans a list from left to right and copies every legitimate value into a new list that it creates.

- ☒ copy-over

See: Ch. 3: The Efficiency of Algorithms, Section - Analysis of Algorithms

Which search algorithm works by halving the list of items to search?

- ☒ binary

Given the data cleanup problem of removing 0 values from a data set, the \_\_\_\_ algorithm squeezes 0 values out of the list by copying each remaining data item in the list one cell to the left.

- ☒ shuffle-left

Even if the largest number in the unsorted section of a list is already at the end of the unsorted section, the \_\_\_\_ algorithm will exchange this number with itself.

- ☒ selection sort

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When the registrar at your institution sorts students in a class by name, he or she is using the \_\_\_\_ algorithm.

-  selection sort