# a)

<https://colab.research.google.com/drive/178cEmwsNW42C_A0y8t4MMWWIYZioVYpO#scrollTo=kFNxBvAsDMoD>

# b)

# The time complexity of the hybrid sort is-

Worst Case: O(n log n)

Best Case: O(n)

Average Case: O(n log n)

# c)

A graph of different colored lines

Description automatically generated

A graph of a number of data

Description automatically generated

A graph of a function

Description automatically generated with medium confidence

# d)

1. This hybrid algorithm can be used to handle DBMS with large-scale data sorting. Different data scale may have different data patterns, which is exactly suit for hybrid sort since sorting algorithms can be changed dynamically.
2. Search Engines- hybrid sort can benefit search engines by dynamically Sorting indexing data, or ranking search results based on multiple criteria.