Week 1 Day 1

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#) Question 1

Graph for algorithms

Chart, line chart

Description automatically generated

The above graph shows the time required to find the max distance between two even numbers on different array size of 1000, 2000, …. 10,000 integers using four different algorithms.

The time required for finding max distance with Algorithm-1 rises subtly as the array size increases. For Algorithm-2, the required time fluctuated at the beginning and then escalated sharply as the size increased.

For Algorithm-3 and Algorithm-4, the time required to calculate the max distance remained steady even if the size of the arrays increased.

#) Question 2: Proof by induction

