## Results for Maximum Sum Contiguous Subsequence Lab

1. **1) The asymptotic computational complexity of the given solution?**

T(n) ∈

## Improvement 1:

1. **Quadratic Solution**
2. The pseudo code of your algorithm
3. Derive the asymptotic computational complexity of this solution?

T(n) ∈

## Improvement 2

### Design an n \* log n Divide and Conquer Solution

1. The pseudo code of your algorithm
2. What is the recurrence relation for the divide and conquer solution?

T(n) =

1. Derive the asymptotic computational complexity of this solution?

T(n) ∈

## Improvement 3:

## Design a Scanning solution

1. The pseudo code of your algorithm
2. Derive the asymptotic computational complexity of this solution?

T(n) ∈

## Lab, Part 2: Design and implement an experiment to test empirical results against the predicted asymptotic results

1. **Continue to record answers to the questions in your file clearly labeling each answer by the question number, e.g. E.1 , convert to a pdf and submit to PolyLearn by 9:00 p.m. on Friday 4/28 .**
2. **What curves would you expect to find that would fit the data?**
3. **Why do you need to run the different size tests for the different algorithms to get some idea of the empirical performance of the different algorithms?**
4. **How can you reduce its effect?**

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1. **Do the empirical results match the theoretical curves? Why or why not?**