**California University of PA**

**Dept. of Computer Science, Info Systems, and Engineering Technology**

**ACET440 Computer Networking**

**Fall 2022**

**= Lab Report =**

**Lab 1 Summation**

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**Date Submitted: 09/01/2022**

**Question 1:**

1. If we use S\_r(n) to denote the summation calculated by your program using recursive on given positive integer n, what is the biggest n on DRACO1 that your program can NOT correctly output S\_r(n)?
2. Is this n also the biggest integer for the S(n) calculated by summation.c that uses a for loop? Why?

**Answer 1:**

1. The largest that the recursive function can calculate correctly is an input of 92681. (See figure 2)
2. Yes, the input for the “for” loop is the highest calculated number done correctly.
3. This is because the data type unsigned int is used for sum which has a max value of 4,294,967,295 and when the input is 92682 it puts the sum over this max number and will overflow.

A computer screen capture

Description automatically generated with medium confidence*Figure 1: Compile and Run of summation.c in DRACO1*

A screenshot of a computer

Description automatically generated with medium confidence

*Figure 2: Finding the max number for recursive and for loop*