**Submission Page:**

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**Lab for ITSC 3181 Introduction to Computer Architecture, Spring 2023**

**Lab #03: Remote access to Linux machine, Basic C programming and performance with sum. Due 02/02. Total points: 40(1%,5pts for attendance, each row has 5 pts. Each wrong column will reduce 1 pt.) of the final accumulated percentage grade.**

**Your submission should have all the cells filled based on the data you collect when doing the lab.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Size** | **#Cycles** | **# Instructions** | **CPI** | **CPU Freq (Clock Rate) (GHz)** | **CPU Time (ms) for sum loop (#cycles/Clock Rate and convert it to ms)** | **CPU time (ms) outputted by the program itself** |
| **0** | **307,314** | **207,509** | **1.48** | **0.869 GHz** | **0.35220ms** | **0.766699ms** |
| **100** | **299,515** | **225,649** | **1.32** | **0.913 GHz** | **0.32838ms** | **0.946407ms** |
| **1000** | **332,121** | **382,242** | **0.87** | **1.029 GHz** | **0.32206ms** | **0.686785ms** |
| **10000** | **905,151** | **1,948,303** | **1.15** | **1.739 GHz** | **0.51901ms** | **0.792715ms** |
| **100000** | **6,453,546** | **17,611,141** | **2.73** | **2.609 GHz** | **2.47ms** | **3.372373ms** |
| **1000000** | **61,502,875** | **174,212,110** | **2.83** | **3.090 GHz** | **19.87ms** | **20.30ms** |
| **10000000** | **607,321,283** | **1,740,213,262** | **2.87** | **3.289 GHz** | **184.3ms** | **185ms** |