

CSCI 524 – Computer Architecture

Homework 1

Due: September 20, 2016

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- **Part #1**

1. The output from the program is

`The sum from 0 .. 100 is :171700:`

2. The value in register \$t7 in hex is 0x00002710, which can be converted to $10,000_{10}$.
3. Line 16 gets executed 51 times.
4. On the first iteration, the only register that changes in the PC, or program counter. None of the other registers change on the first iteration because in the instruction

`mul $t7, $t6, $t6`

the value of the register \$t6 is zero, and the value of \$t7 is already zero as well. However, on later iterations of the loop \$t7's value will change as double \$t6's value gets loaded into it.

- **Part #2**

See attached code.

- **Part #3**

See attached code.