

COMP2120 Assignment 2

March 3, 2025

Problem 1

This program adds from 1 to 9 together and store the result in memory, thus the result is $\sum_{i=1}^9 = 45$.

Problem 2

The final result in P is 0x00000014, whose decimal value is 20. This program adds 5 for 4 times, thus the result is $4 \times 5 = 20$.

Screenshot

```
(.venv) stx206@KT2-LAPTOP:~/Development/COMP2120/src/asm5$ python3 ./sim.py prog
Content of Memory:
0600ff04
0000003c
0600ff01
00000040
05010002
0600ff03
00000044
00040104
00010201
01030105
0802ff00
0000001c
0704ff00
00000045
09000000
00000000
00000001
0000000a
00000000
Final Result:
Content of the first 14 registers:
00000000
0000000a
00000001
0000000a
0000002d
00000000
00000000
00000000
00000000
00000000
00000000
00000000
00000000
00000000
Content of Memory:
0600ff04
0000003c
0600ff01
00000040
05010002
0600ff03
00000044
00040104
00010201
01030105
0802ff00
0000001c
0704ff00
00000045
09000000
00000000
00000001
0000000a
0000002d
(.venv) stx206@KT2-LAPTOP:~/Development/COMP2120/src/asm5$
```