

Instruction	ADD0x	Expected Value	Actual value
SET R1, 0x0384	0x00000	R1= 0x384	R1= 0x384
SET R8, 0x1234	0x00001	R8 = 0x1234	R8 = 0x1234
SSET R8, 0x5678	0x00002	R8 = 0x12345678	R8 = 0x12345678
ADDI R5, R1, 20	0x00003	R5 = 0x398	R5 = 0x398
XOR R3, R1, R5	0x00004	R3 = 0x1c	R3 = 0x1c
ADD R4, R8, R3	0x00005	R4 = 0x12345694	R4 = 0x12345694
LW R1, 0(R0)	0x00006	R1=MEM[0x00000]= 0x00000001	R1=MEM[0x00000]= 0x00000001
LW R2, 1(R0)	0x00007	R2=MEM[0x00001]=0x00000001	R2=MEM[0x00001]=0x00000001
LW R3, 2(R0)	0x00008	R3=MEM[0x00002]=0x0000000A	R3=MEM[0x00002]=0x0000000A
SUB R4, R4, R4	0x00009	R4=0x0	R4=0x0
Loop1: ADD R4, R2, R4	0x0000a	Table1_Expected_Loop1	Table1_Expected_Loop1
SLT R6, R2, R3	0x0000b	Table1_Expected_Loop1	Table1_Expected_Loop1
BEQ R6, R0, done	0x0000c	Table1_Expected_Loop1	Table1_Expected_Loop1
ADD R2, R1, R2	0x0000d	Table1_Expected_Loop1	Table1_Expected_Loop1
BEQ R0, R0, Loop1	0x0000e	Table1_Expected_Loop1	Table1_Expected_Loop1
done: SW R4, 0(R0)	0x0000f	Mem[0x00000] = 0x37	Mem[0x00000] = 0x37
MUL R10, R2, R3	0x00010	R10 = 0x64	R10 = 0x64
SRL R14, R10, R4	0x00011	R14 = 0x0	R14 = 0x0
SRA R15, R10, R4	0x00012	R15 = 0x0	R15 = 0x0
RORI R26, R14, 5	0x00013	R26 = 0x0	R26 = 0x0
JALR R7, R0, func	0x00014	R7=0x00015 , PC=0x0001a	R7=0x00015 , PC=0x0001a
SET R9, 0x4545	0x00015	R9 = 0x4545	R9 = 0x4545
SET R10, 0x4545	0x00016	R10 = 0x4545	R10 = 0x4545
BGE R10, R9, L1	0x00017	branch taken	branch taken
ANDI R23, R1, 0xFFFF	0x00018		
L1: BEQ R0, R0, L1	0x00019	Program Terminated INFINITE LOOP	Program Terminated INFINITE LOOP
func: OR R5, R2, R3	0x0001a	R5 = 0xa	R5 = 0xa
LW R1, 0(R0)	0x0001b	R1 = Mem[0x00000]= 0x37	R1 = Mem[0x00000]= 0x37
LW R2, 5(R1)	0x0001c	R2 = Mem[0x00005]= 0x0	R2 = Mem[0x00005]= 0x0
LW R3, 6(R1)	0x0001d	R3 = Mem[0x00006]= 0x0	R3 = Mem[0x00006]= 0x0
AND R4, R2, R3	0x0001e	R4 = 0x0	R4 = 0x0

SW R4, 0(R0)	0x0001f	Mem[0x00000]=0x0	Mem[0x00000]=0x0
JALR R0, R7, 0	0x00020	PC=0x00015	PC=0x00015

Table1_Expected_Loop1

i	R4+=R2	R6=(R2<R3)	B1	R2+=R1	B2
0	0x1	0x1	F	0x2	T
1	0x3	0x1	F	0x3	T
2	0x6	0x1	F	0x4	T
3	0xa	0x1	F	0x5	T
4	0xf	0x1	F	0x6	T
5	0x15	0x1	F	0x7	T
6	0x1c	0x1	F	0x8	T
7	0x24	0x1	F	0x9	T
8	0x2d	0x1	F	0xa	T
9	0x37	0x1	T		

Table1_Actual_Loop1

i	R4+=R2	R6=(R2<R3)	B1	R2+=R1	B2
0	0x1	0x1	F	0x2	T
1	0x3	0x1	F	0x3	T
2	0x6	0x1	F	0x4	T
3	0xa	0x1	F	0x5	T
4	0xf	0x1	F	0x6	T
5	0x15	0x1	F	0x7	T
6	0x1c	0x1	F	0x8	T
7	0x24	0x1	F	0x9	T
8	0x2d	0x1	F	0xa	T
9	0x37	0x1	T		