

EECS 2021E

Zamir Lalji

212779997

September 25, 2018

Lab B

ORG 96

DD 15, 6, -5, 12, 3, 11,0

addi x1, x0, 96

ld x2, 0(x1) // Y=15

ld x3, 8(x1) // Z=6

ld x4, 16(x1) // C=-5

ld x5, 24(x1) // D=12

ld x6, 32(x1) // L=3

ld x7, 40(x1) // M=11

ld x14, 48(x1) // X=0

add x8,x2,x7 // (Y+M)

sub x9, x6, x5 // (L-D)

add x10, x3, x4 // (Z+C)

sub x14, x8,x9 //(Y+M)-(L-D)

add x14, x14, x10 //(Y+M)-(L-D)+(Z+C)

sub x14, x14, x5 // Final

sd x14, 48(x1) // stored 24 into memory

RVS (RISC-V Visual Simulator) v0.39

File | Fname: C:/Users/Owner/Desktop/2021.a

ORG 96
DD 15, 6, -5, 12, 3, 11,0
addi x1, x0, 96
ld x2, 0(x1) // Y=15
ld x3, 8(x1) // Z=6
ld x4, 16(x1) // C=-5
ld x5, 24(x1) // D=12
ld x6, 32(x1) // L=3
ld x7, 40(x1) // M=11
ld x14, 48(x1) // X=0
add x8,x2,x7 // (Y+M)
sub x9, x6, x5 // (L-D)
add x10, x3, x4 // (Z+C)
sub x14, x8,x9 //(Y+M)-(L-D)
add x14, x14, x10 //(Y+M)-(L-D)+(Z+C)
sub x14, x14, x5 // Final
sd x14, 48(x1) // stored 24 into memory

0x0000000000000096 I 000000000000 00001 011 00010 0000011 1d x2 x1 0x000 1d
0x00000000000000a0 I 0000000001000 00001 011 00011 0000011 1d x3 x1 0x008 1d
0x00000000000000a4 I 0000000010000 00001 011 00100 0000011 1d x4 x1 0x010 1d
0x00000000000000a8 I 0000000010000 00001 011 00101 0000011 1d x5 x1 0x018 1d
0x00000000000000ac I 0000000100000 00001 011 00110 0000011 1d x6 x1 0x020 1d
0x00000000000000b0 I 0000000101000 00001 011 00111 0000011 1d x7 x1 0x028 1d
0x00000000000000b4 I 0000000100000 00001 011 01110 0000011 1d x14 x1 0x030 1d
0x00000000000000b8 R 0000000 00111 00010 000 01000 0110011 add x5 x2 x7 add
0x00000000000000bc R 0100000 00101 00110 000 01001 0110011 sub x9 x6 x5 sub
0x00000000000000c0 R 0000000 01000 00011 000 01010 0110011 add x10 x3 x4 add
0x00000000000000c4 R 0100000 01001 01000 000 01110 0110011 sub x14 x8 x9 sub
0x00000000000000c8 R 0000000 01010 01110 000 01110 0110011 add x14 x14 x10 add
0x00000000000000cc R 0100000 00101 01110 000 01110 0110011 sub x14 x14 x5 sub
0x00000000000000d0 S 0000001 01110 00001 011 10000 0100011 sd x14 x1 0x030 sd

SYMBOL TABLE
0x0000000000000096 START

Source | IntPC | 0x0000000000000044 | START | Stop | Run | Next | TXT | Listing

x4 tp 0xfffffffffffffffb -5
x5 t0 0x000000000000000c 12
x6 t1 0x0000000000000003 3
x7 t2 0x000000000000000b 11
x8 s0 0x000000000000001a 26
x9 s1 0xfffffffffffffffb -5
x10 a0 0x0000000000000001 1
x11 a1 0x0000000000000000 0
x12 a2 0x0000000000000000 0
x13 a3 0x0000000000000000 0
x14 a4 0x0000000000000018 24
x15 a5 0x0000000000000000 0
x16 a6 0x0000000000000000 0
x17 a7 0x0000000000000000 0
x18 s2 0x0000000000000000 0
x19 s3 0x0000000000000000 0
x20 s4 0x0000000000000000 0
x21 s5 0x0000000000000000 0
x22 s6 0x0000000000000000 0
x23 s7 0x0000000000000000 0
x24 s8 0x0000000000000000 0

ADDECIMAL INTEGER FLOAT RUN
7.410985E-32
2.964394E-32
NOT_A_FL
5.928788E-32
1.452197E-32
5.434722E-32
1.185758E-32

addi x1 x0 0x060
ld x2 x1 0x000
ld x3 x1 0x008
ld x4 x1 0x010
ld x5 x1 0x018
ld x6 x1 0x020
ld x7 x1 0x028
ld x14 x1 0x030
add x8 x2 x7
sub x9 x6 x5
add x10 x3 x4
sub x14 x8 x9
add x14 x14 x10
sub x14 x14 x5
sd x14 x1 0x030

NO INSTRUCTION

Clear OUT

Refresh | HEX | INT | C | FLP | Regs | Refresh | HEX | INT | C | FLP | TXT | Memory | Clear | Execution | Cancel | Enter | INP

ORG 96

DD 12, 3, 11,0

addi x1, x0, 96

addi x2, x0, 15// Y=15

addi x3, x0, 6 // Z=6

addi x4, x0, -5 // C=-5

ld x5, 0(x1) // D=12

ld x6, 8(x1) // L=3

ld x7, 16(x1) // M=11

ld x14, 24(x1) // X=0

add x8,x2,x7 // (Y+M)

sub x9, x6, x5 // (L-D)

add x10, x3, x4 // (Z+C)

sub x14, x8,x9 //(Y+M)-(L-D)

add x14, x14, x10 //(Y+M)-(L-D)+(Z+C)

sub x14, x14, x5 // Final

sd x14, 24(x1) // stored 24 into memory

RVS (RISC-V Visual Simulator) v0.39

File | Fname: C:/Users/Owner/Desktop/2021part2.a

ORG 96
DD 12, 3, 11,0
addi x1, x0, 96
addi x2, x0, 15// Y=15
addi x3, x0, 6 // Z=6
addi x4, x0, -5 // C=-5
ld x5, 0(x1) // D=12
ld x6, 8(x1) // L=3
ld x7, 16(x1) // M=11
ld x14, 24(x1) // X=0
add x8,x2,x7 // (Y+M)
sub x9, x6, x5 // (L-D)
add x10, x3, x4 // (Z+C)
sub x14, x8,x9 //(Y+M)-(L-D)
add x14, x14, x10 //(Y+M)-(L-D)+(Z+C)
sub x14, x14, x5 // Final
sd x14, 24(x1) // stored 24 into memory

0x0000000000000000 I 000000001111 00000 000 00010 0010011 addi x2 x0 0x00f addi
0x0000000000000008 I 000000000110 00000 000 00011 0010011 addi x3 x0 0x006 addi
0x000000000000000c I 11111111011 00000 000 00100 0010011 addi x4 x0 0xffb addi
0x0000000000000000 I 000000000000 00001 011 00101 0000011 ld x5 x1 0x000 ld
0x0000000000000004 I 000000001000 00001 011 00110 0000011 ld x6 x1 0x008 ld
0x0000000000000008 I 0000000010000 00001 011 00111 0000011 ld x7 x1 0x010 ld
0x000000000000000c I 0000000011000 00001 011 01110 0000011 ld x14 x1 0x018 ld
0x0000000000000000 R 00000000 00111 00010 000 01000 0110011 add x8 x2 x7 add
0x0000000000000004 R 0100000 00101 00110 000 01001 0110011 sub x9 x6 x5 sub
0x0000000000000008 R 0000000 01000 00011 000 01010 0110011 add x10 x3 x4 add
0x000000000000000c R 0100000 01001 01000 000 01110 0110011 sub x14 x8 x9 sub
0x00000000000000b0 R 0000000 01010 01110 000 01110 0110011 add x14 x14 x10 add
0x00000000000000b4 R 0100000 00101 01110 000 01110 0110011 sub x14 x14 x5 sub
0x00000000000000b8 S 0000000 01110 00001 011 11000 0100011 sd x14 x1 0x018 sd

SYMBOL TABLE
0x0000000000000000 START

Source IntPC 0x00000000000000bc START Stop Run Next TXT Listing

Label	Address	Value	Comment
x0 zero	0x0000000000000000	0	
x1 ra	0x0000000000000000	96	
x2 sp	0x0000000000000000	15	
x3 gp	0x0000000000000000	6	
x4 tp	0xfffffffffffffffb	-5	
x5 t0	0x0000000000000000	12	
x6 t1	0x0000000000000003	3	
x7 t2	0x000000000000000b	11	
x8 a0	0x000000000000001a	26	
x9 a1	0xfffffffffffffffb	-5	
x10 a2	0x0000000000000001	1	
x11 a3	0x0000000000000000	0	
x12 a4	0x0000000000000000	0	
x13 a5	0x0000000000000000	0	
x14 a6	0x0000000000000018	24	
x15 a7	0x0000000000000000	0	
x16 a8	0x0000000000000000	0	
x17 a9	0x0000000000000000	0	
x18 a10	0x0000000000000000	0	
x19 a11	0x0000000000000000	0	
x20 a12	0x0000000000000000	0	

Refresh | HEX | INT | FLP | Regs | Refresh | HEX | INT | FLP | TXT | Memory | Clear | Execution | Cancel | Enter | INP