

PC	Machine Code	Basic Code	Original Code	Result
0x00	0x00000013	addi x0 x0 0	main: addi x0,x0,0x0	
x40x	0x00100093	addi x1 x0 1	addi x1,x0,0x1	#x1 = 0x1
80xc	0x00100113	addi x2 x0 1	addi x2,x0,0x1	#x2 = 0x1
0x10	0x00100193	addi x3 x0 1	addi x3,x0,0x1	#x3 = 0x1
0x14	0x00100213	addi x4 x0 1	addi x4,x0,0x1	#x4 = 0x1
0x18	0x00802283	lw x5 8(x0)	lw x5,0x8(x0)	#x5 = 0x80000000
0x1c	0x00128333	add x6 x5 x1	add x6,x5,x1	#x6 = 0x80000001
0x20	0x0020C3B3	xor x7 x1 x2	xor x7,x1,x2	#x7 = 0
0x24	0x40708433	sub x8 x1 x7	sub x8,x1,x7	#x8 = 0x1
0x28	0xFFFF1E493	ori x9 x3 -1	ori x9,x3,-1	#x9 = 0xFFFFFFFF
0x2c	0x00327533	and x10 x4 x3	and x10,x4,x3	#x10= 0x1
0x30	0x00502223	sw x5 4(x0)	sw x5,0x4(x0)	#mem(1)= 0x80000000
0x34	0x005325B3	slt x11 x6 x5	slt x11,x6,x5	#x11= 0x0
0x38	0x0AA3C613	xori x12 x7 170	xori x12,x7,0xAA	#x12= 0xAA
0x3c	0x00818663	beq x3 x8 12	beq x3,x8,loop1	
0x40	0x00000013	addi x0 x0 0	addi x0,x0,0x0	
0x44	0x00000033	add x0 x0 x0	add x0,x0,x0	
0x48	0x0012D6B3	srl x13 x5 x1	loop1:srl x13,x5,x1	#x13= 0x40000000
0x4c	0x00147713	andi x14 x8 1	andi x14,x8,0x1	#x14= 0x1
0x50	0x0034E7B3	or x15 x9 x3	or x15,x9,x3	#x15= 0xFFFFFFFF
0x54	0x00A50833	add x16 x10 x10	add x16,x10,x10	#x16= 0x2
0x58	0x0085C8B3	xor x17 x11 x8	xor x17,x11,x8	#x17= 0x1
0x5c	0x00402903	lw x18 4(x0)	lw x18,0x4(x0)	#x18= 0x80000000
0x60	0x004629B3	slt x19 x12 x4	slt x19,x12,x4	#x19= 0
0x64	0x0016DA13	srl x20 x13 1	srl x20,x13,0x1	#x20= 0x20000000
0x68	0x00A77AB3	and x21 x14 x10	and x21,x14,x10	#x21= 0x1
0x6c	0x00C71463	bne x14 x12 8	bne x14,x12,loop2	
0x70	0x00000013	addi x0 x0 0	addi x0,x0,0x0	
0x74	0x40128B33	sub x22 x5 x1	loop2:sub x22,x5,x1	#x22= 0x7FFFFFFF
0x78	0x00150B93	addi x23 x10 1	addi x23,x10,0x1	#x23= 0x2
0x7c	0x00986C33	or x24 x16 x9	or x24,x16,x9	#x24= 0xFFFFFFFF
0x80	0x00B9CCB3	xor x25 x19 x11	xor x25,x19,x11	#x25= 0x0
0x84	0x0FFA7D13	andi x26 x20 255	andi x26,x20,0xFF	#x26= 0x200000FF
0x88	0x00390DB3	add x27 x18 x3	add x27,x18,x3	#x27= 0x80000001
0x8c	0x002A5E33	srl x28 x20 x2	srl x28,x20,x2	#x28= 0x10000000
0x90	0x0AF9EE93	ori x29 x19 175	ori x29,x19,0xAF	#x29= 0xAF
0x94	0x001A0F33	add x30 x20 x1	add x30,x20,x1	#x30= 0x20000001
0x98	0x00802F83	lw x31 8(x0)	lw x31,0x8(x0)	#x31= 0x80000000
0x9c	0xF69FF06F	jal x0 -152	jal x0,main	
0xa0	0x001A8A93	addi x21 x21 1	addi x21,x21,0x1	#x21=?
0xa4	0x001B8B93	addi x23 x23 1	addi x23,x23,0x1	#x23=?
	0x001C8C93	addi x25 x25 1	addi x25,x25,0x1	#x25=?