PC	Machine Code	Basic Code	Original Code	Result
0x0	0x00007293	andi x5 x0 0	main:andi x5, x0, 0x0	# x5 = 0
0x4	0x00007313	andi x6 x0 0	andi x6, x0, 0x0	# x6 = 0
0x8	0x88888137	lui x2 559240	lui x2, 0x88888	# x2 = 0x88888000
0xc	0x00832183	lw x3 8(x6)	lw x3, 0x8(x6)	# x3 = 0x80000000
0x10	0x0032A223	sw x3 4(x5)	sw x3, 0x4(x5)	# mem (1) = 0x80000000
0x14	0x00402083	lw x1 4(x0)	lw x1, 0x4(x0)	# x1 = 0x80000000
0x18	0x01C02383	lw x7 28(x0)	nochange:lw x7, 0x1c(x0)	#x7 = 0x80000000
0x1c	0x00338863	beq x7 x3 16	beq x7, x3, cmd_add	
0x20	0x555550B7	lui x1 349525	lui x1,0x55555	# x1 = 0x55555000
0x24	0x0070A0B3	slt x1 x1 x7	slt x1,x1,x7	# x1 = 0x1;
0x28	0xFE0098E3	bne x1 x0 -16	bne x1,x0,nochange	
0x2c	0x007282B3	add x5 x5 x7	cmd_add:add x5, x5, x7	# x5 = 0x80000000
0x30	0x00230333	add x6 x6 x2	add x6, x6, x2	# x6 = 0x88888000
0x34	0x00531463	bne x6 x5 8	bne x6, x5, cmd_sub	
0x38	0x40000033	sub x0 x0 x0	sub x0,x0,x0	
0x3c	0x40530433	sub x8 x6 x5	cmd_sub: sub x8,x6,x5	# x8 = 0x08888000
0x40	0x405304B3	sub x9 x6 x5	sub x9,x6,x5	#x9 = 0x08888000
0x44	0x0080006F	jal x0 8	jal x0, cmd_and	
0x48	0x00007033	and x0 x0 x0	and x0,x0,x0	
0x4c	0x0072F533	and x10 x5 x7	cmd_and: and x10,x5,x7	#x10 = 0x80000000
0x50	0x00157593	andi x11 x10 1	andi x11,x10,0x1	# x11 = 0x0
0x54	0x00B51463	bne x10 x11 8	bne x10,x11 cmd_or	
0x58	0x00006033	or x0 x0 x0	or x0,x0,x0	
0x5c	0x00A5E5B3	or x11 x11 x10	cmd_or:or x11,x11,x10	# x11 = 0x80000000
0x60	0x0015E513	ori x10 x11 1	ori x10,x11,0x1	# x10 = 0x80000001
0x64	0x00558463	beq x11 x5 8	beq x11,x5,cmd_xor	
0x68	0x00004033	xor x0 x0 x0	xor x0,x0,x0	
0x6c	0x00A5C633	xor x12 x11 x10	cmd_xor: xor x12,x11,x10	# x12 = 0x00000001
0x70	0x00164613	xori x12 x12 1	xori x12,x12,0x1	# x12 = 0x00000000
0x74	0x00B61463	bne x12 x11 8	bne x12,x11,cmd_srl	
0x78	0x00000013	addi x0 x0 0	addi x0,x0,0x0	
0x7c	0x0012D293	srli x5 x5 1	cmd_srl: srli x5,x5,0x1	# x5 = 0x40000000
0x80	0x00060463	beq x12 x0 8	beq x12,x0,cmd_sll	
0x84	0x40000033	sub x0 x0 x0	sub x0,x0,x0	
0x88	0x00129293	slli x5 x5 1	cmd_sll: slli x5,x5,0x1	# x5 = 0x80000000
0x8c	0x00B28463	beq x5 x11 8	beq x5,x11,cmd_slt	
0x90	0x00000013	addi x0 x0 0	addi x0,x0,0x0	
0x94	0x001026B3	slt x13 x0 x1	cmd_slt: slt x13,x0,x1	# x13 = 0x0
0x98	0x00503733	sltu x14 x0 x5	sltu x14,x0,x5	# x14 = 0x1
0x9c	0xF65FF06F	jal x0 -156	jal x0,main	