

# 流水线 CPU（Verilog 实现）实验报告

## 一、CPU 设计方案综述

### （一）总体设计概述

本 CPU 为 Verilog 实现的流水线 MIPS-CPU，支持的指令集包括 {LB、LBU、LH、LHU、LW、SB、SH、SW、ADD、ADDU、SUB、SUBU、MULT、MULTU、DIV、DIVU、SLL、SRL、SRA、SLLV、SRLV、SRAV、AND、OR、XOR、NOR、ADDI、ADDIU、ANDI、ORI、XORI、LUI、SLT、SLTI、SLTIU、SLTU、BEQ、BNE、BLEZ、BGTZ、BLTZ、BGEZ、J、JAL、JALR、JR、MFHI、MFLO、MTHI、MTLO}，为了实现这些功能，CPU 主要包括了 Fench, FD, Decode, DE, Excute, EM, Memory, MW。

### （二）关键模块定义

#### 1. Fench

内部包含 PC 与 IM 两个部件

表格 1 Fench 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
EnPC	I	pc 使能信号
NPC	I	下一 PC 值
PCF	O	当前 PC 值

#### 2. PC

表格 2 PC 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
EnPC	I	写使能信号 1: 可向 PC 中写入数据 0: 不能向 PC 中写入数据
npc[31:0]	O	更新 PC 值
tonpc[31:0]	O	更新后 PC 值

### 3. FD

Fench 与 Decode 之间的流水线寄存器

表格 4 FD 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
EnFD	I	写使能信号 1: 可向 FD 中写入数据 0: 不能向 FD 中写入数据
PCF[31:0]	I	F 阶段当前 PC 值
InstrF[31:0]	I	F 阶段当前指令
PCD[31:0]	O	D 阶段当前 PC 值
InstrD[31:0]	O	D 阶段当前指令

### 4. Decode

内部包含 GRF,EXT,CMP,NPC 四个部件。

表格 5 Decode 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
PCD[31:0]	I	D 阶段当前 PC 值
PCF[31:0]	I	F 阶段当前 PC 值
InstrD[31:0]	I	D 阶段当前指令
FwdD1[31:0]	I	CMP 原件端口转发而来的数据
FwdD2[31:0]	I	CMP 原件端口转发而来的数据
WDW[31:0]	I	由 MW 寄存器连接而来的 GRF 写入数据
A3W[4:0]	I	由 MW 寄存器连接而来的 GRF 写入地址
PCW[31:0]	I	由 MW 寄存器连接而来的 PC 值
RD1DE[31:0]	O	GRF 输出
RD2DE[31:0]	O	GRF 输出
Imm32DE[31:0]	O	EXT 输出

A3DE[4:0]	O	当前指令下的 GRF 写入地址
WDDE[31:0]	O	当前指令下的 GRF 写入输入
NPC[31:0]	O	待更新的 PC 值
D1Use	O	是否要使用 RD1
D2Use	O	是否要使用 RD2

## 5. GRF

表格 6 GRF 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
A1[4:0]	I	Instr[25:21]
A2[4:0]	I	Instr[20:16]
A3[4:0]	I	Instr[15:11]
WD[31:0]	I	GRF 写入数据
PC[31:0]	I	当前待输入 PC 值
RD1[31:0]	O	寄存器输出 1
RD2[31:0]	O	寄存器输出 2

## 6. EXT

表格 7 EXT 模块端口定义

信号名	方向	描述
Imm16	I	16 位输入
EXTop	I	零扩展或符号扩展选择信号
EXT_result[31:0]	O	扩展后结果输出

## 7. CMP

表格 8 CMP 模块端口定义

信号名	方向	描述
SrcA	I	输入 1
SrcB	I	输入 2
eq	O	两者相等
eqz	O	SrcA 等于 0

ltz	O	SrcA 小于零
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## 8. NPC

表格 9 NPC 模块端口定义

信号名	方向	描述
PCF[31:0]	I	F 阶段当前 PC 值
PCD[31:0]	I	D 阶段当前 PC 值
Imm26[25:0]	I	D 阶段指令后 26 位
zero	I	比较两数相等
ra[31:0]	I	GRF 输出 1
npcop[2:0]	I	Npc 选择信号
npc[31:0]	O	下一个 PC 值

## 9. DE

表格 10 DE 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
reset	I	复位信号
FlushDE	I	DE 寄存器清空信号
EnDE	I	DE 寄存器使能信号
PCD[31:0]	I	D 阶段当前 PC 值
InstrD[1:0]	I	D 阶段当前指令
PCE[31:0]	O	E 阶段当前 PC 值
InstrE[31:0]	O	E 阶段当前指令
RD1D[31:0]	I	D 阶段 GRF 输出 1
RD2D[31:0]	I	D 阶段 GRF 输出 2
Imm32D[31:0]	I	D 阶段 EXT 输出
A3D[4:0]	I	D 阶段 A3 值
WDD[31:0]	I	D 阶段写入数据
RD1E[31:0]	O	E 阶段 GRF 输出 1
RD2E[31:0]	O	E 阶段 GRF 输出 2

Imm32E[31:0]	O	E 阶段 EXT 输出
A3E[4:0]	O	E 阶段 A3 值
WDE[31:0]	O	E 阶段写入数据

## 10. Excute

表格 11 Extcute 模块端口定义

信号名	方向	描述
clk	I	时钟信号
reset	I	复位信号
InstrE[31:0]	I	E 阶段当前指令
Imm32E[31:0]	I	E 阶段 EXT 输出
WDE[31:0]	I	E 阶段写入数据
FwdE1[31:0]	I	ALU 端口转发而来的数据
FwdE2[31:0]	I	ALU 端口转发而来的数据
WDEM[31:0]	O	E 阶段后写入数据
ResEM[31:0]	O	E 阶段 ALU 输出数据
RD2EM[31:0]	O	ALU 端口 2 转发而来的数据
E1Use	O	ALU1 端口是否在使用
E2Use	O	ALU2 端口是否在使用

## 11. ALU

表格 12 ALU 模块端口定义

信号名	方向	描述
SrcA[31:0]	I	ALU 输入 1
SrcB[31:0]	I	ALU 输入 2
ALUop[3:0]	I	ALU 运算方式选择
Result[31:0]	O	ALU 输出

## 12. EM

表格 13 EM 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号

FlushEM	I	清空信号
PCE[31:0]	I	E 阶段当前 PC 值
InstrE[4:0]	I	E 阶段当前指令
A3E[31:0]	I	E 阶段 A3 值
WDE[31:0]	I	E 阶段写入信号
ResE[31:0]	I	E 阶段 ALU 输出
RD2E[31:0]	I	E 阶段 ALU 端口 2
PCM[31:0]	O	M 阶段当前 PC 值
InstrM[31:0]	O	M 阶段当前指令
A3M[4:0]	O	M 阶段当前 A3 值
WDM[31:0]	O	M 阶段当前写入数据
ResM[31:0]	O	M 阶段 ALU 输出
RD2M[31:0]	O	M 阶段 ALU 端口 2

### 13. Memory

表格 14 Memory 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
PCM[31:0]	I	M 阶段当前 PC 值
InstrM[31:0]	I	M 阶段当前指令
WDM[31:0]	I	M 阶段写入数据
ResM[31:0]	I	M 阶段 ALU 输出
FwdM2[31:0]	I	M 写入端口转发而来的数据
m_data_rdata	I	EM 读出的数据
WDMW[31:0]	O	MW 寄存器中写入数据
M2Use	O	M 写入端口是否使用
m_data_addr	O	访问 EM 的地址
m_data_wdata	O	待写入 EM 的数据
m_data_byteen	O	四位字节使能

m_inst_addr	O	M 级 PC
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#### 14. MW

表格 16 MW 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
PCM[31:0]	I	M 阶段当前 PC 值
InstrM[31:0]	I	M 阶段当前指令
A3M[31:0]	I	M 阶段 A3 值
WDM[31:0]	I	M 阶段写入数据
PCW[31:0]	O	W 阶段当前 PC 值
InstrW[31:0]	O	W 阶段当前指令
A3W[31:0]	O	W 阶段 A3 值
WDW[31:0]	O	W 阶段写入数据

#### 15. Controller

表格 17 Controller 模块端口定义

信号名	方向	描述
Instr[31:0]	I	32 位指令
MemWrite	O	存储器写入信号
NPCop[1:0]	O	NPC 选择信号
ALUOp	O	ALU 运算选择信号
ALUASel	O	ALU 端口 1 输入选择信号
ALUBSel	O	ALU 端口 2 输入选择信号
EXTop	O	EXT 运算选择信号
A3DE[31:0]	O	A3 选择结果
WidthOp[2:0]	O	位宽信号
MD	O	MDU 使用信号
MDUOp	O	MDU 运算选择信号
start	O	乘除法启动信号

busy	O	乘除法使用中信号
D1Use	O	是否使用 GRF 的 RD1 端口
D2Use	O	是否使用 GRF 的 RD2 端口
E1Use	O	是否使用 ALU 的输入端口 1
E2Use	O	是否使用 ALU 的输入端口 2
M2Use	O	是否使用 Memory 的写入端口
WDSelD	O	选择 D 阶段后的写入数据
WDSelE	O	选择 E 阶段后的写入数据
WDSelM	O	选择 M 阶段后的写入数据

## 16. Hazard

表格 18 Hazard 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
A1D[4:0]	I	D 阶段当前 A1 值
A2D[4:0]	I	D 阶段当前 A2 值
RD1D[31:0]	I	D 阶段当前 GRF 输出端口 1
RD2D[1:0]	I	D 阶段当前 GRF 输出端口 2
D1Use	I	是否使用 GRF 的 RD1 端口
D2Use	I	是否使用 GRF 的 RD2 端口
A1E[4:0]	I	E 阶段当前 A1 值
A2E[4:0]	I	E 阶段当前 A2 值
RD1E[31:0]	I	E 阶段当前 GRF 输出端口 1
RD2E[31:0]	I	E 阶段当前 GRF 输入端口 2
E1Use	I	是否使用 ALU 输入端口 1
E2Use	I	是否使用 ALU 输入端口 2
A3E[4:0]	I	E 阶段当前 A3 值
WDE[31:0]	I	E 阶段当前写入数据
A2M[4:0]	I	M 阶段当前 A2 值



RD2M[31:0]	I	M 阶段 ALU 端口 2 转发而来的数据
M2Use	I	Memory 写入端口是否使用
A3M[4:0]	I	M 阶段当前 A3 值
WDM[31:0]	I	M 阶段写入数据
A3W[4:0]	I	W 阶段当前 A3 值
WDW[31:0]	I	W 阶段写入数据
start	I	MDU 启动信号
busy	I	MDU 使用中信号
MD	I	MDU 使用信号
FwdD1[31:0]	O	CMP 端口 1 转发而来的数据
FwdD2[31:0]	O	CMP 端口 2 转发而来的数据
FwdE1[31:0]	O	ALU 端口 1 转发而来的数据
FwdE2[31:0]	O	ALU 端口 2 转发而来的数据
FwdM2[31:0]	O	Memory 写入端口转发而来的数据
EnPC	O	PC 寄存器使能信号
EnDE	O	DE 寄存器使能信号
EnEM	O	EM 寄存器使能信号
FlushDE	O	DE 寄存器清空信号
FlushEM	O	EM 寄存器清空信号

## 17. MDU

表格 16 MDU 模块端口定义

信号名	方向	描述
Clk	I	时钟信号
Reset	I	复位信号
srcA[31:0]	I	输入数据 A
srcB[31:0]	I	输入数据 B
start	I	MDU 启动信号
MDUop[2:0]	I	MDU 运算选择信号
HIWrite	I	HI 寄存器写使能信号

LOWrite	I	LO 寄存器写使能信号
HI[31:0]	O	HI 寄存器
LO[31:0]	O	LO 寄存器
busy	O	MDU 使用中信号

## 二、思考题

1、为什么需要有单独的乘除法部件而不是整合进 ALU？为何需要有独立的 HI、LO 寄存器？

因为执行乘除法运算需要多个周期的时间，无法在一周期以内计算完，所以不能像普通的加减法一样整合进 ALU 马上计算出结果，同理，因为需要多个时钟周期进行运算，而流水线还在继续执行下去，所以计算结果不可能直接写入寄存器堆，只能先存放在 HI,LO 寄存器中，需要的时候使用 mfhi 和 mflo 指令来读取结果。

2、参照你对延迟槽的理解，试解释“乘除槽”。

乘除槽也就是在乘除模块运算时如果之后是一条不需要用到该模块的指令，那么流水线继续执行，如果之后是需要读写 HI,LO 的指令，则暂停流水线。

3、举例说明并分析何时按字节访问内存相对于按字访问内存性能上更有优势。在处理字符串时按字节存储更有优势，比如字符串的拼接，比较等操作对于按字节来说很方便，而如果按字节存储则还需要拆成四个字节来进行操作。

4、在本实验中你遇到了哪些不同指令类型组合产生的冲突？你又是如何解决的？相应的测试样例是什么样的？

首先是非乘除相关指令，处理方法同 p5；然后是乘除相关指令，可通过 start，busy，MD 信号判断是否阻塞等问题。测试样例见测试部分。

5、为了对抗复杂性你采取了哪些抽象和规范手段？这些手段在译码和处理数据冲突的时候有什么样的特点与帮助？

首先设置一个名为 Macro 的头文件，里面存储各种宏定义，再各个部件需要使用时引用即可。其次使用高内聚，低耦合的设计思路，尽可能把 cpu 模块化，同时降低模块之间的相互影响。在译码时将指令分类，同时设计相关指令的信号。这些手段在处理冲突时可以方便的进行操作而不必纠结于各种细节。

## 三、测试

### 1. 乘除测试

```
ori $1, $1, 38324
ori $2, $2, 74122
mult $1, $2
```

```
mfhi $13
mflo $14
mult $13, $14
mfhi $3
mflo $4
div $3, $4
mfhi $5
mflo $6
div $5, $1
mfhi $7
mflo $8
```

输出

```
@00003000: $ 1 <= 000095b4
@00003004: $ 1 <= 00010000
@00003008: $ 1 <= 0001218a
@0000300c: $ 2 <= 0001218a
@00003014: $13 <= 00000001
@00003018: $14 <= 4778de64
@00003020: $ 3 <= 00000000
@00003024: $ 4 <= 4778de64
@0000302c: $ 5 <= 00000000
@00003030: $ 6 <= 00000000
@00003038: $ 7 <= 00000000
@0000303c: $ 8 <= 00000000
```

## 2. 综合测试

```
ori $1, $0, 4
ori $2, $0, 11
ori $3, $0, 5
ori $4, $0, 1
sw $1, 0($0)
sw $2, 4($0)
sw $3, 8($0)
sw $2, 12($0)
sw $1, 16($0)
sw $1, 20($0)
sw $1, 24($0)
sw $4, 28($0)
sw $4, 32($0)
sw $2, 36($0)
sw $1, 40($0)
sw $1, 44($0)
sw $2, 48($0)
sw $1, 52($0)
```

```
sw $3, 56($0)
sw $3, 60($0)
sw $4, 64($0)
sw $3, 68($0)
sw $4, 72($0)
sw $3, 76($0)
sw $2, 80($0)
sw $1, 84($0)
sw $2, 88($0)
sw $3, 92($0)
sw $2, 96($0)
sw $4, 100($0)
sw $2, 104($0)
sw $1, 108($0)
sw $3, 112($0)
sw $4, 116($0)
sw $1, 120($0)
sw $1, 124($0)
lui $3, 1
mfhi $2
mthi $2
multu $2, $2
TAG1:
bne $2, $2, TAG2
lui $1, 10
beq $1, $2, TAG2
mthi $1
TAG2:
bgez $1, TAG3
mfhi $1
sb $1, 0($1)
nor $3, $1, $1
TAG3:
lui $4, 9
multu $4, $4
sll $0, $0, 0
bltz $1, TAG4
TAG4:
andi $2, $1, 9
subu $3, $2, $2
sh $2, 0($2)
blez $3, TAG5
TAG5:
multu $3, $3
```

```

multu $3, $3
mult $3, $3
mtlo $3
TAG6:
beq $3, $3, TAG7
subu $3, $3, $3
mtlo $3
andi $4, $3, 4
TAG7:
mfhi $4
blez $4, TAG8
lw $3, 0($4)
lbu $3, 0($4)
TAG8:
multu $3, $3
mfhi $1
sll $1, $3, 12
sb $1, 0($1)
TAG9:
mult $1, $1
lbu $1, 0($1)
and $3, $1, $1
sw $3, 0($1)
TAG10:
bne $3, $3, TAG11
lbu $2, 0($3)
multu $2, $2
lh $1, 0($3)
TAG11:
mfhi $1
bgtz $1, TAG12
multu $1, $1
mthi $1
TAG12:
srlv $4, $1, $1
lh $1, 0($4)
sw $1, 0($1)
lb $3, 0($1)
TAG13:
srl $2, $3, 14
mfhi $4
sh $2, 0($4)
mthi $3
TAG14:

```

```

mfhi $4
mfhi $4
sb $4, 0($4)
sh $4, 0($4)
TAG15:
xor $3, $4, $4
mflo $2
bne $4, $4, TAG16
mthi $2
TAG16:
multu $2, $2
lui $2, 14
divu $2, $2
div $2, $2
TAG17:
mult $2, $2
lui $2, 10
andi $2, $2, 3
lui $4, 10
TAG18:
beq $4, $4, TAG19
sll $0, $0, 0
lui $3, 2
lhu $1, 0($3)
TAG19:
lui $1, 15
lui $3, 14
multu $3, $3
srlv $4, $3, $1
TAG20:
andi $2, $4, 7
sll $0, $0, 0
beq $4, $3, TAG21
mthi $4
TAG21:
blez $3, TAG22
mult $3, $3
srl $3, $3, 11
div $3, $3
TAG22:
multu $3, $3
sw $3, -448($3)
bgtz $3, TAG23
xori $1, $3, 3

```

```

TAG23:
    sltiu $3, $1, 12
    blez $3, TAG24
    lui $4, 10
    mfhi $1
TAG24:
    mthi $1
    mfhi $4
    andi $4, $4, 11
    lui $1, 9
TAG25:
    blez $1, TAG26
    slt $4, $1, $1
    bne $4, $1, TAG26
    mthi $4
TAG26:
    mflo $2
    mfhi $4
    mthi $4
    mult $2, $4
TAG27:
    or $2, $4, $4
    lbu $3, 0($4)
    lb $3, -192($3)
    ori $4, $3, 10
TAG28:
    mthi $4
    mthi $4
    sb $4, 54($4)
    mthi $4
TAG29:
    lui $3, 1
    sll $0, $0, 0
    xori $3, $3, 9
    sb $4, 54($4)
TAG30:
    sll $0, $0, 0
    mflo $4
    bltz $4, TAG31
    sll $0, $0, 0
TAG31:
    mthi $1
    lui $2, 4
    srlv $1, $1, $1

```

```

sll $3, $2, 2
TAG32:
ori $3, $3, 15
bne $3, $3, TAG33
lui $3, 14
bne $3, $3, TAG33
TAG33:
and $3, $3, $3
beq $3, $3, TAG34
addu $2, $3, $3
or $3, $2, $3
TAG34:
multu $3, $3
beq $3, $3, TAG35
lui $2, 1
subu $1, $2, $3
TAG35:
sll $0, $0, 0
addiu $4, $1, 10
mthi $1
mult $4, $1
TAG36:
mflo $3
sll $0, $0, 0
mtlo $3
bltz $3, TAG37
TAG37:
lui $1, 13
divu $1, $1
bne $1, $1, TAG38
mfhi $4
TAG38:
sh $4, 0($4)
mflo $2
lw $1, 0($4)
bltz $4, TAG39
TAG39:
mthi $1
mflo $4
multu $4, $1
mtlo $4
TAG40:
blez $4, TAG41
mthi $4

```



```

bltz $4, TAG41
lui $3, 1
TAG41:
bgtz $3, TAG42
sll $0, $0, 0
ori $2, $3, 13
lw $2, 0($3)
TAG42:
andi $2, $2, 12
mult $2, $2
add $4, $2, $2
lw $3, 0($4)
TAG43:
lui $3, 8
lui $1, 4
blez $1, TAG44
and $2, $3, $1
TAG44:
bgtz $2, TAG45
mfhi $4
mthi $2
mflo $3
TAG45:
or $1, $3, $3
mfhi $2
bgez $3, TAG46
lui $2, 5
TAG46:
mfhi $3
sh $3, 0($3)
sw $3, 0($3)
beq $2, $2, TAG47
TAG47:
sh $3, 0($3)
mflo $4
lw $1, 0($3)
bgtz $3, TAG48
TAG48:
xor $4, $1, $1
mthi $4
lui $3, 12
lhu $3, 0($4)
TAG49:
blez $3, TAG50

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```

lui $3, 13
sltiu $4, $3, 5
beq $3, $4, TAG50
TAG50:
lui $2, 2
sllv $1, $2, $4
sll $0, $0, 0
sll $0, $0, 0
TAG51:
lui $4, 11
sll $0, $0, 0
sll $0, $0, 0
bne $3, $3, TAG52
TAG52:
divu $2, $2
bne $2, $2, TAG53
lui $2, 11
nor $1, $2, $2
TAG53:
subu $2, $1, $1
multu $1, $2
add $1, $2, $1
lbu $4, 0($2)
TAG54:
multu $4, $4
mthi $4
beq $4, $4, TAG55
lui $4, 15
TAG55:
bne $4, $4, TAG56
sll $0, $0, 0
mflo $4
lui $3, 10
TAG56:
sll $0, $0, 0
bgez $3, TAG57
sll $0, $0, 0
mfhi $3
TAG57:
mfhi $4
sll $0, $0, 0
lhu $4, 0($4)
beq $4, $4, TAG58
TAG58:

```

```

lui $4, 4
addiu $1, $4, 14
sll $0, $0, 0
mfhi $2
TAG59:
bgtz $2, TAG60
sb $2, 0($2)
mflo $3
sw $2, 0($3)
TAG60:
sra $3, $3, 8
lui $1, 15
ori $2, $3, 0
bgez $2, TAG61
TAG61:
lui $2, 11
sll $0, $0, 0
bne $2, $2, TAG62
srl $1, $2, 5
TAG62:
or $3, $1, $1
mflo $2
sw $1, 0($2)
lh $4, -22528($3)
TAG63:
lui $4, 11
mfhi $1
nor $2, $4, $4
sll $0, $0, 0
TAG64:
bltz $4, TAG65
mtlo $4
lui $4, 14
srlv $2, $4, $4
TAG65:
divu $2, $2
mfhi $4
mthi $2
mtlo $2
TAG66:
lui $1, 11
slti $1, $4, 1
lui $3, 8
mtlo $1

```

```

TAG67:
div $3, $3
mflo $4
mthi $3
sra $2, $4, 10
TAG68:
mtlo $2
lb $4, 0($2)
mthi $4
bltz $4, TAG69
TAG69:
mthi $4
mult $4, $4
bgtz $4, TAG70
sra $3, $4, 2
TAG70:
bltz $3, TAG71
sh $3, 0($3)
lh $2, 0($3)
mult $3, $3
TAG71:
sh $2, 0($2)
mfhi $1
bgez $2, TAG72
lui $1, 11
TAG72:
lui $3, 11
addiu $2, $1, 0
mfhi $1
lhu $3, 0($1)
TAG73:
lh $2, 0($3)
bltz $2, TAG74
lb $3, 0($3)
lhu $2, 0($3)
TAG74:
add $4, $2, $2
blez $2, TAG75
srav $4, $2, $2
mfhi $4
TAG75:
multu $4, $4
lui $3, 3
mtlo $4

```

```

lui $1, 4
TAG76:
addiu $4, $1, 15
mflo $2
bltz $4, TAG77
mflo $2
TAG77:
srlv $1, $2, $2
lw $3, 0($2)
lhu $2, 0($3)
mfhi $4
TAG78:
multu $4, $4
bgtz $4, TAG79
addi $2, $4, 12
sh $2, 0($4)
TAG79:
sb $2, 0($2)
mtlo $2
sb $2, 0($2)
divu $2, $2
TAG80:
lui $1, 0
bgtz $1, TAG81
multu $2, $1
mtlo $1
TAG81:
ori $2, $1, 14
srav $3, $2, $1
or $1, $2, $1
mtlo $1
TAG82:
sh $1, 0($1)
bltz $1, TAG83
mult $1, $1
divu $1, $1
TAG83:
lui $4, 5
xor $3, $4, $4
mthi $4
lhu $2, 0($3)
TAG84:
srlv $2, $2, $2
sb $2, 0($2)

```

```

mult $2, $2
andi $1, $2, 10
TAG85:
sh $1, 0($1)
sub $1, $1, $1
mult $1, $1
mfhi $2
TAG86:
bltz $2, TAG87
lui $1, 15
beq $2, $2, TAG87
andi $3, $1, 0
TAG87:
lui $1, 12
mthi $3
or $1, $1, $3
mfhi $1
TAG88:
lui $1, 2
mtlo $1
addiu $1, $1, 2
addiu $1, $1, 10
TAG89:
lui $1, 14
sll $1, $1, 13
sll $0, $0, 0
mflo $2
TAG90:
lui $2, 14
ori $2, $2, 14
sll $0, $0, 0
mthi $2
TAG91:
bltz $4, TAG92
mult $4, $4
mult $4, $4
mtlo $4
TAG92:
srl $4, $4, 9
lui $4, 7
sll $0, $0, 0
mflo $2
TAG93:
lui $3, 3

```

```

beq $2, $2, TAG94
mtlo $2
addi $1, $3, 13
TAG94:
slt $2, $1, $1
sra $2, $2, 9
bltz $2, TAG95
and $4, $2, $2
TAG95:
bne $4, $4, TAG96
srlv $2, $4, $4
mfhi $3
lh $1, 0($4)
TAG96:
sll $3, $1, 1
mflo $3
ori $2, $3, 10
slt $3, $3, $2
TAG97:
or $3, $3, $3
lui $3, 3
sll $0, $0, 0
sltu $4, $4, $3
TAG98:
lui $2, 2
beq $4, $4, TAG99
mthi $4
sra $2, $4, 14
TAG99:
andi $3, $2, 13
bgtz $3, TAG100
mfhi $4
sll $0, $0, 0
TAG100:
mthi $4
lui $1, 3
srl $4, $1, 4
mfhi $4
TAG101:
bne $4, $4, TAG102
sb $4, 0($4)
lbu $1, 0($4)
multu $1, $4
TAG102:

```

```

lb $2, 0($1)
lb $3, 0($2)
or $2, $2, $1
lbu $1, 0($3)
TAG103:
lui $2, 3
sra $4, $1, 15
sltu $1, $1, $1
subu $3, $1, $1
TAG104:
lui $3, 14
subu $2, $3, $3
mtlo $2
multu $2, $3
TAG105:
mflo $2
mult $2, $2
mtlo $2
sh $2, 0($2)
TAG106:
sb $2, 0($2)
mflo $1
lb $2, 0($2)
bne $2, $1, TAG107
TAG107:
multu $2, $2
beq $2, $2, TAG108
nor $3, $2, $2
beq $3, $3, TAG108
TAG108:
sb $3, 1($3)
sh $3, 1($3)
subu $3, $3, $3
mflo $2
TAG109:
lui $3, 1
sll $0, $0, 0
bltz $3, TAG110
lbu $3, 0($2)
TAG110:
subu $3, $3, $3
sltiu $3, $3, 7
bgez $3, TAG111
mflo $2

```



```

TAG111:
lw $3, 0($2)
multu $2, $2
beq $3, $2, TAG112
lui $3, 5
TAG112:
mthi $3
sll $0, $0, 0
mflo $3
mthi $3
TAG113:
multu $3, $3
mfhi $2
mfhi $3
lw $3, 0($3)
TAG114:
mthi $3
div $3, $3
mthi $3
sll $0, $0, 0
TAG115:
addiu $4, $3, 7
srl $3, $4, 10
lw $4, 0($3)
sh $3, 0($3)
TAG116:
beq $4, $4, TAG117
mthi $4
addiu $2, $4, 14
multu $4, $4
TAG117:
sw $2, 0($2)
bne $2, $2, TAG118
mfhi $1
mfhi $1
TAG118:
beq $1, $1, TAG119
lui $1, 11
lh $1, 0($1)
lh $1, 0($1)
TAG119:
sll $0, $0, 0
beq $1, $1, TAG120
sll $1, $1, 9

```

```

beq $1, $1, TAG120
TAG120:
sll $0, $0, 0
lui $4, 7
mtlo $4
sll $0, $0, 0
TAG121:
lui $2, 15
multu $2, $4
mtlo $2
sll $0, $0, 0
TAG122:
mtlo $4
addu $4, $4, $4
bne $4, $4, TAG123
subu $3, $4, $4
TAG123:
lw $1, 0($3)
mthi $1
lb $3, 0($3)
mult $3, $3
TAG124:
mflo $2
mthi $3
mtlo $2
addu $1, $3, $3
TAG125:
multu $1, $1
lui $1, 8
srlv $3, $1, $1
lui $2, 8
TAG126:
beq $2, $2, TAG127
mult $2, $2
lb $3, 0($2)
bltz $3, TAG127
TAG127:
lui $4, 0
addiu $3, $3, 7
addu $3, $4, $3
sll $3, $3, 10
TAG128:
srl $1, $3, 2
beq $1, $1, TAG129

```

```

sll $0, $0, 0
beq $2, $1, TAG129
TAG129:
and $2, $2, $2
beq $2, $2, TAG130
lui $3, 6
mfhi $3
TAG130:
bgez $3, TAG131
mflo $4
bne $3, $3, TAG131
mflo $4
TAG131:
addu $1, $4, $4
mtlo $1
lui $2, 10
blez $2, TAG132
TAG132:
sll $0, $0, 0
multu $2, $1
lui $2, 2
bgez $2, TAG133
TAG133:
sll $0, $0, 0
div $2, $2
slti $4, $2, 11
mfhi $3
TAG134:
mflo $2
bltz $2, TAG135
mflo $4
mflo $2
TAG135:
lb $1, 0($2)
beq $2, $1, TAG136
mflo $1
bne $2, $2, TAG136
TAG136:
sb $1, 0($1)
lui $4, 10
div $4, $4
lui $3, 13
TAG137:
sll $0, $0, 0

```

```

lui $4, 2
mtlo $4
divu $4, $4
TAG138:
sll $0, $0, 0
sll $0, $0, 0
mfhi $4
mult $2, $2
TAG139:
bne $4, $4, TAG140
multu $4, $4
xor $4, $4, $4
sw $4, 0($4)
TAG140:
sh $4, 0($4)
slt $1, $4, $4
mflo $4
bgez $1, TAG141
TAG141:
srl $1, $4, 4
xori $3, $1, 7
mult $3, $4
slti $2, $1, 10
TAG142:
mthi $2
mflo $2
bgtz $2, TAG143
slti $3, $2, 15
TAG143:
or $2, $3, $3
sltu $2, $3, $3
sb $3, 0($2)
bne $3, $2, TAG144
TAG144:
sllv $2, $2, $2
bne $2, $2, TAG145
addi $3, $2, 2
lui $2, 8
TAG145:
or $1, $2, $2
bltz $1, TAG146
mthi $2
beq $1, $1, TAG146
TAG146:

```

```

mflo $1
lb $1, 0($1)
beq $1, $1, TAG147
mthi $1
TAG147:
mflo $4
lui $3, 6
bltz $1, TAG148
sra $1, $1, $1
TAG148:
mult $1, $1
sh $1, 0($1)
sltiu $4, $1, 8
bgtz $1, TAG149
TAG149:
mthi $4
mtlo $4
sra $3, $4, 0
lui $4, 5
TAG150:
mtlo $4
mult $4, $4
sll $0, $0, 0
sltu $3, $2, $4
TAG151:
mult $3, $3
sh $3, 0($3)
multu $3, $3
lhu $4, 0($3)
TAG152:
mfhi $1
beq $4, $4, TAG153
addi $4, $4, 14
divu $4, $1
TAG153:
bgez $4, TAG154
divu $4, $4
bgtz $4, TAG154
srl $1, $4, 0
TAG154:
mthi $1
addiu $2, $1, 1
bne $2, $1, TAG155
sb $2, 0($2)

```

```

TAG155:
beq $2, $2, TAG156
divu $2, $2
mfhi $1
sh $2, 0($2)
TAG156:
mflo $2
mthi $1
mtlo $2
multu $2, $1
TAG157:
beq $2, $2, TAG158
slt $4, $2, $2
andi $1, $4, 6
beq $4, $4, TAG158
TAG158:
lui $3, 15
sll $0, $0, 0
sw $3, 0($1)
xori $4, $1, 12
TAG159:
div $4, $4
lui $3, 12
lui $2, 6
sw $4, 0($4)
TAG160:
sll $0, $0, 0
lui $4, 12
mthi $2
bgtz $3, TAG161
TAG161:
sll $0, $0, 0
lui $4, 15
lui $1, 11
lui $1, 9
TAG162:
lui $1, 13
mfhi $2
lui $1, 9
sltu $3, $1, $2
TAG163:
bgez $3, TAG164
slti $3, $3, 8
lui $4, 8

```

```

mfhi $4
TAG164:
sll $0, $0, 0
mtlo $4
sltiu $3, $4, 11
bne $3, $3, TAG165
TAG165:
mfhi $4
mtlo $3
sllv $2, $3, $3
bne $4, $2, TAG166
TAG166:
multu $2, $2
xori $4, $2, 3
sh $4, 0($2)
mthi $2
TAG167:
bltz $4, TAG168
addu $3, $4, $4
mult $3, $3
bne $3, $3, TAG168
TAG168:
mfhi $3
sw $3, 0($3)
mflo $2
slti $3, $2, 2
TAG169:
sh $3, 0($3)
bgez $3, TAG170
sb $3, 0($3)
lui $1, 11
TAG170:
sll $0, $0, 0
bgez $1, TAG171
sll $0, $0, 0
ori $2, $2, 3
TAG171:
mthi $2
lhu $1, 0($2)
lui $1, 1
beq $2, $1, TAG172
TAG172:
sll $0, $0, 0
sllv $4, $1, $1

```

```

sll $0, $0, 0
mtlo $1
TAG173:
bgez $4, TAG174
mtlo $4
addi $1, $4, 4
lbu $3, 0($4)
TAG174:
bgtz $3, TAG175
sw $3, 0($3)
xori $4, $3, 13
xori $2, $3, 5
TAG175:
div $2, $2
subu $3, $2, $2
mult $2, $3
bne $3, $2, TAG176
TAG176:
mfhi $4
mtlo $4
mfhi $1
or $2, $3, $1
TAG177:
lw $4, 0($2)
sb $2, 0($4)
lhu $2, 0($2)
sltu $3, $4, $2
TAG178:
lw $2, 0($3)
lh $2, 0($3)
addiu $3, $2, 8
sw $2, 0($3)
TAG179:
addiu $4, $3, 5
sb $3, 0($4)
div $4, $4
mflo $1
TAG180:
beq $1, $1, TAG181
or $3, $1, $1
mflo $1
mtlo $3
TAG181:
xor $1, $1, $1

```



```

lbu $1, 0($1)
sw $1, 0($1)
sltiu $2, $1, 15
TAG182:
div $2, $2
sb $2, 0($2)
mtlo $2
bne $2, $2, TAG183
TAG183:
mthi $2
beq $2, $2, TAG184
mflo $3
bne $2, $2, TAG184
TAG184:
lbu $2, 0($3)
lui $4, 9
mthi $2
divu $3, $3
TAG185:
bne $4, $4, TAG186
mflo $4
lui $2, 7
lui $2, 0
TAG186:
bgez $2, TAG187
multu $2, $2
bltz $2, TAG187
div $2, $2
TAG187:
lb $1, 0($2)
mult $2, $1
srlv $1, $2, $1
bne $2, $1, TAG188
TAG188:
sb $1, 0($1)
sw $1, 0($1)
mult $1, $1
lui $4, 11
TAG189:
xori $4, $4, 10
multu $4, $4
mult $4, $4
blez $4, TAG190
TAG190:

```

```

mthi $4
mult $4, $4
addiu $1, $4, 6
multu $4, $4
TAG191:
sll $0, $0, 0
srl $4, $1, 6
sll $2, $4, 9
mthi $4
TAG192:
bne $2, $2, TAG193
mtlo $2
sll $4, $2, 8
divu $4, $4
TAG193:
bltz $4, TAG194
sll $0, $0, 0
sll $0, $0, 0
lui $4, 7
TAG194:
sltiu $4, $4, 10
sltiu $1, $4, 14
mthi $4
lh $1, 0($4)
TAG195:
lui $4, 3
mtlo $4
sll $0, $0, 0
bne $1, $4, TAG196
TAG196:
addu $3, $4, $4
beq $4, $4, TAG197
mtlo $4
sll $2, $4, 10
TAG197:
bltz $2, TAG198
lui $3, 14
mtlo $2
sll $0, $0, 0
TAG198:
bgtz $4, TAG199
addu $4, $4, $4
beq $4, $4, TAG199
mthi $4

```

```

TAG199:
sra $2, $4, 11
beq $2, $2, TAG200
mthi $4
bne $2, $4, TAG200
TAG200:
mfhi $2
sll $0, $0, 0
srl $2, $2, 6
nor $3, $2, $2
TAG201:
addiu $2, $3, 8
sw $3, 6137($2)
sll $2, $2, 12
lui $3, 8
TAG202:
beq $3, $3, TAG203
sll $0, $0, 0
bltz $3, TAG203
mflo $4
TAG203:
mfhi $3
sltiu $1, $4, 10
multu $4, $3
mtlo $3
TAG204:
mthi $1
beq $1, $1, TAG205
multu $1, $1
mtlo $1
TAG205:
lui $3, 10
lui $2, 3
lui $3, 9
beq $3, $2, TAG206
TAG206:
addiu $1, $3, 1
srl $1, $1, 2
beq $1, $3, TAG207
divu $3, $3
TAG207:
lui $2, 4
sra $1, $1, 2
lui $1, 6

```

```

bgez $1, TAG208
TAG208:
mflo $4
andi $1, $1, 10
multu $1, $1
xor $1, $1, $1
TAG209:
sra $1, $1, 2
bne $1, $1, TAG210
lb $4, 0($1)
sw $1, 0($1)
TAG210:
sb $4, 1($4)
mthi $4
lui $4, 13
mult $4, $4
TAG211:
mflo $3
mflo $1
sw $3, 0($1)
mfhi $4
TAG212:
mthi $4
addiu $4, $4, 15
sltiu $4, $4, 9
beq $4, $4, TAG213
TAG213:
lb $4, 0($4)
mfhi $1
sb $4, 0($4)
mtlo $4
TAG214:
sll $0, $0, 0
lui $3, 0
mthi $4
srav $1, $1, $1
TAG215:
blez $1, TAG216
ori $2, $1, 14
multu $1, $2
bne $1, $2, TAG216
TAG216:
lui $2, 5
mthi $2

```

```

mtlo $2
slt $1, $2, $2
TAG217:
mult $1, $1
lw $2, 0($1)
mthi $1
sb $2, 0($1)
TAG218:
sub $3, $2, $2
sb $3, 0($2)
srlv $1, $3, $2
sb $1, 0($1)
TAG219:
sh $1, 0($1)
mflo $2
multu $1, $1
blez $1, TAG220
TAG220:
lw $3, 0($2)
sw $2, 0($2)
sll $2, $2, 11
mult $2, $3
TAG221:
blez $2, TAG222
lh $1, 0($2)
mult $1, $2
mthi $1
TAG222:
mfhi $1
multu $1, $1
blez $1, TAG223
addi $4, $1, 13
TAG223:
bne $4, $4, TAG224
div $4, $4
lui $1, 8
sb $4, 0($4)
TAG224:
beq $1, $1, TAG225
sll $0, $0, 0
lh $1, 0($1)
bgtz $1, TAG225
TAG225:
lui $3, 0

```

```

bgez $3, TAG226
sll $0, $0, 0
div $3, $1
TAG226:
sh $3, 0($3)
mult $3, $3
bne $3, $3, TAG227
mthi $3
TAG227:
lui $3, 8
mult $3, $3
lui $1, 4
sll $0, $0, 0
TAG228:
sll $0, $0, 0
multu $1, $1
sll $0, $0, 0
multu $2, $1
TAG229:
bne $2, $2, TAG230
srav $2, $2, $2
sltu $4, $2, $2
mult $2, $2
TAG230:
lb $4, 0($4)
lui $4, 8
divu $4, $4
sll $0, $0, 0
TAG231:
lui $1, 1
bltz $1, TAG232
sltu $3, $1, $4
nor $1, $4, $4
TAG232:
sll $0, $0, 0
divu $1, $1
sll $0, $0, 0
sll $0, $0, 0
TAG233:
slti $2, $4, 10
bltz $2, TAG234
sllv $3, $4, $4
lui $2, 13
TAG234:

```

```

subu $4, $2, $2
mtlo $2
lui $1, 6
bgez $4, TAG235
TAG235:
sll $0, $0, 0
sll $0, $0, 0
slt $4, $1, $1
mfhi $2
TAG236:
bne $2, $2, TAG237
mtlo $2
lhu $1, 0($2)
multu $1, $2
TAG237:
xor $2, $1, $1
addiu $4, $1, 6
mflo $4
lui $1, 4
TAG238:
lui $1, 5
sll $0, $0, 0
bltz $1, TAG239
andi $3, $1, 0
TAG239:
bgez $3, TAG240
slti $1, $3, 10
bltz $3, TAG240
sh $1, 0($1)
TAG240:
addiu $1, $1, 14
divu $1, $1
mthi $1
beq $1, $1, TAG241
TAG241:
addu $4, $1, $1
div $1, $1
slt $3, $4, $4
mult $1, $4
TAG242:
xor $1, $3, $3
lw $4, 0($3)
ori $1, $4, 0
mfhi $4

```

```

TAG243:
mflo $1
lui $2, 2
mthi $4
blez $2, TAG244
TAG244:
sll $0, $0, 0
xor $2, $3, $2
subu $4, $3, $2
mfhi $4
TAG245:
sw $4, 0($4)
mflo $1
sh $4, 0($4)
mult $1, $1
TAG246:
mult $1, $1
xori $2, $1, 10
bltz $1, TAG247
lui $1, 9
TAG247:
mtlo $1
sll $0, $0, 0
sb $1, -456($2)
bne $2, $2, TAG248
TAG248:
divu $2, $2
addu $2, $2, $2
mflo $2
sltu $3, $2, $2
TAG249:
nor $1, $3, $3
sll $4, $3, 7
mult $4, $4
sw $1, 1($1)
TAG250:
sb $4, 0($4)
sw $4, 0($4)
sw $4, 0($4)
sltu $4, $4, $4
TAG251:
multu $4, $4
srav $3, $4, $4
addiu $1, $3, 9

```



```

add $3, $4, $3
TAG252:
mfhi $3
slt $3, $3, $3
mthi $3
lui $4, 8
TAG253:
bgez $4, TAG254
div $4, $4
multu $4, $4
beq $4, $4, TAG254
TAG254:
divu $4, $4
beq $4, $4, TAG255
sllv $3, $4, $4
lui $3, 13
TAG255:
sll $0, $0, 0
sllv $3, $3, $3
mtlo $3
sll $0, $0, 0
TAG256:
multu $3, $3
subu $4, $3, $3
sll $0, $0, 0
multu $3, $3
TAG257:
addu $1, $4, $4
mthi $4
sltiu $1, $1, 14
lbu $2, 0($1)
TAG258:
bne $2, $2, TAG259
mthi $2
sltu $3, $2, $2
mtlo $3
TAG259:
blez $3, TAG260
subu $3, $3, $3
beq $3, $3, TAG260
divu $3, $3
TAG260:
lui $1, 0
lbu $2, 0($3)

```

```

lui $2, 7
bgtz $2, TAG261
TAG261:
div $2, $2
lui $3, 9
sll $0, $0, 0
sll $0, $0, 0
TAG262:
sltiu $1, $2, 15
mthi $2
blez $2, TAG263
subu $4, $2, $2
TAG263:
mtlo $4
ori $2, $4, 13
mult $2, $4
addiu $4, $2, 2
TAG264:
bltz $4, TAG265
slti $2, $4, 15
sh $4, 0($2)
lw $2, 0($2)
TAG265:
lui $3, 11
divu $2, $3
div $2, $3
lui $2, 0
TAG266:
sb $2, 0($2)
beq $2, $2, TAG267
mthi $2
srlv $3, $2, $2
TAG267:
sll $0, $0, 0
sll $0, $0, 0
lui $2, 14
multu $2, $2
TAG268:
bltz $2, TAG269
mflo $4
sll $0, $0, 0
bne $4, $2, TAG269
TAG269:
mflo $1

```

```

sb $1, 0($1)
add $4, $1, $3
mflo $2
TAG270:
mtlo $2
mflo $4
mflo $4
multu $4, $2
TAG271:
sh $4, 0($4)
sh $4, 0($4)
sh $4, 0($4)
sw $4, 0($4)
TAG272:
lui $2, 10
lui $1, 5
mult $2, $4
blez $4, TAG273
TAG273:
sll $0, $0, 0
divu $1, $1
bgez $1, TAG274
andi $4, $1, 9
TAG274:
subu $4, $4, $4
lui $3, 3
multu $3, $4
srav $1, $4, $3
TAG275:
mtlo $1
sh $1, 0($1)
bne $1, $1, TAG276
lui $4, 4
TAG276:
lui $1, 9
sll $0, $0, 0
bne $4, $1, TAG277
mult $4, $4
TAG277:
andi $2, $4, 7
bgez $4, TAG278
divu $2, $4
lw $4, 0($2)
TAG278:

```

```
sra $2, $4, 13
subu $2, $4, $4
andi $1, $4, 3
xor $1, $4, $1
TAG279:
mflo $3
bgtz $1, TAG280
mult $1, $3
sb $1, 0($3)
TAG280:
mtlo $3
slti $3, $3, 10
bgtz $3, TAG281
mflo $2
TAG281:
lw $4, 0($2)
mthi $2
mflo $2
mthi $2
TAG282:
lbu $3, 0($2)
srlv $4, $3, $3
mtlo $3
bne $3, $3, TAG283
TAG283:
mthi $4
lui $3, 10
mflo $1
bgez $3, TAG284
TAG284:
multu $1, $1
blez $1, TAG285
lw $1, 0($1)
mtlo $1
TAG285:
mflo $4
lh $4, 0($4)
mult $1, $1
mult $4, $1
TAG286:
sll $2, $4, 1
mthi $2
sw $4, 0($4)
beq $4, $4, TAG287
```

```

TAG287:
mflo $3
sw $2, 0($2)
mfhi $2
mthi $2
TAG288:
addiu $2, $2, 14
bgez $2, TAG289
nor $2, $2, $2
bne $2, $2, TAG289
TAG289:
sw $2, 15($2)
sh $2, 15($2)
beq $2, $2, TAG290
lui $1, 6
TAG290:
mfhi $4
div $4, $1
sllv $4, $4, $1
lh $2, 0($4)
TAG291:
ori $4, $2, 9
lhu $2, 7($4)
slti $1, $4, 13
andi $2, $2, 0
TAG292:
mthi $2
slti $2, $2, 0
multu $2, $2
lw $1, 0($2)
TAG293:
lui $4, 5
beq $4, $1, TAG294
lui $1, 2
multu $4, $1
TAG294:
slti $2, $1, 15
or $4, $1, $2
beq $4, $1, TAG295
sll $1, $4, 12
TAG295:
mfhi $3
bgez $1, TAG296
mtlo $3

```

```

sw $1, 0($3)
TAG296:
mtlo $3
lh $4, 0($3)
lui $2, 9
sll $0, $0, 0
TAG297:
mtlo $2
bgtz $2, TAG298
mfhi $1
srl $3, $1, 11
TAG298:
srlv $2, $3, $3
sb $3, 0($2)
multu $3, $2
sw $2, 0($2)
TAG299:
lb $4, 0($2)
mfhi $2
srlv $2, $2, $4
sh $2, 0($2)
TAG300:
nor $3, $2, $2
mthi $2
bgez $3, TAG301
lui $4, 15
TAG301:
sll $0, $0, 0
mtlo $1
sll $0, $0, 0
slti $1, $4, 13
TAG302:
addiu $4, $1, 6
mfhi $1
bgtz $1, TAG303
slt $3, $1, $1
TAG303:
multu $3, $3
multu $3, $3
lui $1, 8
lui $2, 4
TAG304:
mfhi $2
sltu $3, $2, $2

```

```

mtlo $3
sw $2, 0($2)
TAG305:
lui $4, 7
mflo $1
blez $3, TAG306
lb $3, 0($3)
TAG306:
sh $3, 0($3)
sb $3, 0($3)
mfhi $4
addi $2, $4, 8
TAG307:
div $2, $2
sh $2, 0($2)
or $1, $2, $2
addiu $3, $1, 11
TAG308:
divu $3, $3
mtlo $3
sb $3, 0($3)
mtlo $3
TAG309:
lui $2, 12
addu $2, $3, $2
bltz $3, TAG310
sll $0, $0, 0
TAG310:
sll $0, $0, 0
mtlo $4
blez $2, TAG311
lw $3, 0($4)
TAG311:
mfhi $1
mult $3, $1
lbu $2, 0($1)
lui $3, 10
TAG312:
bgtz $3, TAG313
nor $3, $3, $3
bne $3, $3, TAG313
lb $3, 0($3)
TAG313:
mthi $3

```

```

sll $0, $0, 0
lui $2, 0
sll $0, $0, 0
TAG314:
addu $1, $2, $2
multu $1, $2
mthi $2
bne $2, $2, TAG315
TAG315:
lw $1, 0($1)
lh $3, 0($1)
beq $1, $3, TAG316
sltiu $1, $3, 15
TAG316:
lui $2, 8
mfhi $3
lui $3, 7
bne $3, $3, TAG317
TAG317:
lui $1, 4
and $2, $3, $3
bltz $3, TAG318
mtlo $2
TAG318:
xori $3, $2, 8
bgtz $3, TAG319
addiu $4, $2, 3
lhu $4, 0($4)
TAG319:
slti $1, $4, 15
slti $3, $4, 12
lui $4, 8
mfhi $1
TAG320:
mtlo $1
mtlo $1
beq $1, $1, TAG321
sh $1, 0($1)
TAG321:
lui $3, 2
mflo $1
sllv $4, $1, $1
mflo $2
TAG322:

```



```

subu $3, $2, $2
lui $2, 12
addiu $3, $2, 4
lui $3, 12
TAG323:
multu $3, $3
sll $0, $0, 0
divu $4, $3
srlv $2, $4, $4
TAG324:
bgtz $2, TAG325
lhu $2, 0($2)
mult $2, $2
mthi $2
TAG325:
mflo $2
sltiu $3, $2, 15
lui $2, 14
mfhi $1
TAG326:
mflo $2
mtlo $2
sh $1, 0($1)
lhu $3, 0($1)
TAG327:
addi $3, $3, 11
beq $3, $3, TAG328
lui $1, 13
lui $1, 2
TAG328:
mtlo $1
beq $1, $1, TAG329
subu $1, $1, $1
subu $3, $1, $1
TAG329:
mthi $3
bltz $3, TAG330
slti $3, $3, 15
sltiu $2, $3, 2
TAG330:
slt $1, $2, $2
mflo $1
mflo $2
sll $0, $0, 0

```

```

TAG331:
sll $0, $0, 0
sll $0, $0, 0
mthi $2
srlv $4, $2, $2
TAG332:
sll $0, $0, 0
lui $1, 9
beq $4, $4, TAG333
mtlo $1
TAG333:
divu $1, $1
lui $3, 11
mtlo $1
mflo $3
TAG334:
mthi $3
beq $3, $3, TAG335
sll $0, $0, 0
lb $1, 0($3)
TAG335:
multu $1, $1
mult $1, $1
sll $0, $0, 0
mthi $1
TAG336:
blez $1, TAG337
xori $4, $1, 14
sll $0, $0, 0
mtlo $1
TAG337:
beq $1, $1, TAG338
sll $0, $0, 0
lui $2, 5
bne $1, $1, TAG338
TAG338:
addu $4, $2, $2
beq $2, $4, TAG339
mtlo $2
bgtz $4, TAG339
TAG339:
addiu $1, $4, 4
mtlo $1
sll $0, $0, 0

```

```

sllv $2, $1, $4
TAG340:
divu $2, $2
mult $2, $2
divu $2, $2
sll $0, $0, 0
TAG341:
mfhi $3
mult $3, $2
mfhi $4
mtlo $4
TAG342:
sll $3, $4, 12
lui $4, 2
beq $3, $4, TAG343
mfhi $4
TAG343:
blez $4, TAG344
mflo $1
mthi $4
sb $1, 0($4)
TAG344:
mult $1, $1
mult $1, $1
mthi $1
mult $1, $1
TAG345:
subu $1, $1, $1
sw $1, 0($1)
slti $3, $1, 3
beq $3, $1, TAG346
TAG346:
mflo $4
mflo $4
mult $4, $4
sb $3, 0($3)
TAG347:
lui $1, 9
subu $4, $4, $1
div $1, $4
blez $1, TAG348
TAG348:
multu $4, $4
mtlo $4

```

```

sll $0, $0, 0
beq $3, $3, TAG349
TAG349:
mflo $2
bne $2, $3, TAG350
sll $0, $0, 0
mfhi $4
TAG350:
bgtz $4, TAG351
mthi $4
sll $0, $0, 0
sll $2, $3, 9
TAG351:
bne $2, $2, TAG352
lh $3, -512($2)
blez $2, TAG352
sh $2, -256($3)
TAG352:
div $3, $3
bgez $3, TAG353
div $3, $3
lw $4, 0($3)
TAG353:
bltz $4, TAG354
mthi $4
blez $4, TAG354
mtlo $4
TAG354:
bne $4, $4, TAG355
sll $0, $0, 0
bgtz $4, TAG355
slti $2, $4, 5
TAG355:
div $2, $2
mtlo $2
bne $2, $2, TAG356
slti $2, $2, 4
TAG356:
lui $2, 13
xori $3, $2, 9
lui $4, 14
srlv $2, $4, $2
TAG357:
srl $3, $2, 8

```

```

srl $2, $2, 5
beq $3, $2, TAG358
lb $3, -28672($2)
TAG358:
add $1, $3, $3
mfhi $4
mult $1, $3
slt $2, $3, $3
TAG359:
mult $2, $2
lbu $4, 0($2)
srl $2, $2, 2
lui $3, 6
TAG360:
divu $3, $3
mult $3, $3
bne $3, $3, TAG361
ori $2, $3, 12
TAG361:
srl $4, $2, 6
beq $4, $4, TAG362
mthi $4
mflo $4
TAG362:
beq $4, $4, TAG363
mfhi $3
bltz $4, TAG363
lui $4, 14
TAG363:
sll $0, $0, 0
bgtz $4, TAG364
addu $1, $4, $4
bgtz $4, TAG364
TAG364:
multu $1, $1
sltiu $1, $1, 14
mthi $1
and $3, $1, $1
TAG365:
sltu $3, $3, $3
mtlo $3
andi $4, $3, 3
sw $3, 0($3)
TAG366:

```

```

addiu $1, $4, 10
lhu $4, 0($4)
addiu $1, $4, 0
bltz $4, TAG367
TAG367:
srav $3, $1, $1
sb $1, 0($3)
mflo $3
mflo $4
TAG368:
lui $1, 7
mtlo $4
mfhi $1
mult $1, $4
TAG369:
mflo $1
and $1, $1, $1
mfhi $3
mult $3, $1
TAG370:
lhu $3, 0($3)
lhu $1, 0($3)
multu $3, $1
sra $1, $1, 0
TAG371:
mfhi $2
lhu $2, 0($1)
mflo $1
mult $2, $2
TAG372:
sb $1, 0($1)
lb $3, 0($1)
bgtz $3, TAG373
srlv $3, $3, $1
TAG373:
sb $3, 0($3)
bne $3, $3, TAG374
lhu $3, 0($3)
mfhi $2
TAG374:
sb $2, 0($2)
sh $2, 0($2)
sw $2, 0($2)
bgtz $2, TAG375

```

```

TAG375:
sb $2, 0($2)
sw $2, 0($2)
srav $1, $2, $2
mflo $1
TAG376:
mflo $2
mthi $1
lui $1, 11
lui $3, 6
TAG377:
sll $0, $0, 0
addu $4, $3, $3
sll $0, $0, 0
sllv $2, $1, $2
TAG378:
slt $4, $2, $2
bgez $4, TAG379
mfhi $2
div $2, $4
TAG379:
mfhi $1
or $2, $1, $2
mthi $2
beq $2, $1, TAG380
TAG380:
slti $3, $2, 9
bne $2, $3, TAG381
lbu $3, 0($3)
srl $1, $3, 10
TAG381:
sltiu $4, $1, 8
mflo $4
bne $1, $4, TAG382
mflo $2
TAG382:
mult $2, $2
addiu $2, $2, 5
and $1, $2, $2
bgez $1, TAG383
TAG383:
div $1, $1
blez $1, TAG384
lui $1, 7

```

```

mthi $1
TAG384:
sltiu $3, $1, 13
mfhi $4
bltz $1, TAG385
divu $1, $4
TAG385:
sll $0, $0, 0
srav $2, $3, $3
lui $1, 15
sll $0, $0, 0
TAG386:
bgez $1, TAG387
xor $3, $1, $1
sw $3, 0($3)
lb $4, 0($1)
TAG387:
blez $4, TAG388
sll $0, $0, 0
mfhi $2
bne $4, $2, TAG388
TAG388:
lui $4, 13
mfhi $4
mfhi $3
mfhi $3
TAG389:
mfhi $2
lb $4, 0($3)
multu $3, $2
lui $3, 7
TAG390:
mult $3, $3
mult $3, $3
bgez $3, TAG391
addiu $2, $3, 14
TAG391:
lui $2, 10
sll $0, $0, 0
mult $2, $2
lui $4, 9
TAG392:
bne $4, $4, TAG393
lui $2, 15

```



```

lui $3, 12
sra $4, $4, $3
TAG393:
beq $4, $4, TAG394
ori $2, $4, 3
div $4, $4
lui $2, 0
TAG394:
slt $2, $2, $2
subu $3, $2, $2
ori $1, $2, 2
sra $1, $3, 0
TAG395:
beq $1, $1, TAG396
multu $1, $1
lui $2, 14
slti $1, $1, 13
TAG396:
lbu $1, 0($1)
beq $1, $1, TAG397
srl $2, $1, 13
div $1, $1
TAG397:
lh $3, 0($2)
sh $3, 0($2)
mflo $1
lui $1, 6
TAG398:
sll $0, $0, 0
subu $2, $1, $1
mfhi $1
bgez $2, TAG399
TAG399:
mtlo $1
mtlo $1
lui $4, 3
mflo $3
TAG400:
sb $3, 0($3)
or $4, $3, $3
sllv $2, $4, $4
sll $1, $4, 9
TAG401:
beq $1, $1, TAG402

```

```

sw $1, 0($1)
multu $1, $1
sw $1, 0($1)
TAG402:
lui $4, 10
mthi $1
mflo $2
addi $3, $2, 15
TAG403:
sb $3, 0($3)
mflo $2
sra $3, $2, 4
sw $2, 0($3)
TAG404:
addiu $4, $3, 12
beq $4, $4, TAG405
lui $1, 13
xori $3, $3, 3
TAG405:
bltz $3, TAG406
mthi $3
beq $3, $3, TAG406
mult $3, $3
TAG406:
sub $4, $3, $3
sltu $3, $3, $4
add $4, $4, $3
lui $3, 0
TAG407:
mfhi $3
lui $4, 2
bne $4, $4, TAG408
subu $4, $3, $4
TAG408:
multu $4, $4
sra $4, $4, 6
sb $4, 2048($4)
lui $3, 3
TAG409:
sll $0, $0, 0
lui $2, 2
sh $4, 2048($4)
sll $0, $0, 0
TAG410:

```

```
mtlo $2
sll $0, $0, 0
subu $2, $2, $2
mtlo $2
TAG411:
mtlo $2
lbu $1, 0($2)
bgtz $2, TAG412
mflo $2
TAG412:
lui $2, 14
mfhi $3
sll $0, $0, 0
subu $2, $2, $3
TAG413:
bne $2, $2, TAG414
xor $4, $2, $2
sb $2, 0($4)
divu $2, $2
TAG414:
addiu $3, $4, 7
bne $3, $3, TAG415
sb $3, 0($3)
blez $3, TAG415
TAG415:
mthi $3
lbu $2, 0($3)
lbu $1, 0($2)
lbu $4, 0($1)
TAG416:
lui $2, 14
mfhi $3
mthi $4
lui $3, 1
TAG417:
bgez $3, TAG418
sll $0, $0, 0
bgez $3, TAG418
lui $4, 7
TAG418:
mflo $2
mthi $4
sltiu $4, $4, 2
lui $3, 10
```

```

TAG419:
bne $3, $3, TAG420
xor $2, $3, $3
andi $2, $2, 7
mflo $1
TAG420:
beq $1, $1, TAG421
lui $4, 12
or $4, $1, $1
mthi $4
TAG421:
beq $4, $4, TAG422
lui $3, 12
bne $3, $3, TAG422
lui $2, 5
TAG422:
bgez $2, TAG423
lui $1, 10
beq $2, $2, TAG423
lui $3, 14
TAG423:
mflo $1
lui $1, 13
sll $0, $0, 0
mfhi $2
TAG424:
mfhi $2
slti $3, $2, 10
lbu $3, 0($2)
blez $3, TAG425
TAG425:
multu $3, $3
lb $4, 0($3)
bgez $4, TAG426
mfhi $1
TAG426:
lb $1, 0($1)
lw $2, 4($1)
mthi $1
lui $4, 3
TAG427:
srav $3, $4, $4
sll $0, $0, 0
sll $0, $0, 0

```

```

srl $3, $4, 3
TAG428:
bgtz $3, TAG429
mfhi $1
bltz $1, TAG429
mult $3, $3
TAG429:
sll $0, $0, 0
mfhi $2
addiu $1, $2, 6
mfhi $3
TAG430:
mthi $3
lb $3, 4($3)
nor $1, $3, $3
sw $3, 4($3)
TAG431:
addiu $1, $1, 15
mult $1, $1
mthi $1
bgtz $1, TAG432
TAG432:
lbu $3, 0($1)
lbu $2, 0($3)
div $3, $1
sb $3, 0($3)
TAG433:
sb $2, -252($2)
lui $1, 6
slti $4, $1, 3
mult $4, $4
TAG434:
mflo $3
mtlo $3
bgez $4, TAG435
lh $1, 0($4)
TAG435:
mtlo $1
lui $3, 15
lui $3, 1
lui $2, 8
TAG436:
sll $0, $0, 0
mfhi $1

```

```

lui $1, 10
bne $2, $1, TAG437
TAG437:
sll $0, $0, 0
blez $1, TAG438
multu $1, $1
mfhi $3
TAG438:
lui $1, 7
bltz $3, TAG439
addiu $3, $1, 11
srl $3, $3, 2
TAG439:
slt $3, $3, $3
lh $2, 0($3)
lbu $3, 0($3)
lb $1, -252($3)
TAG440:
sll $0, $0, 0
beq $1, $1, TAG441
div $1, $1
sh $1, 0($1)
TAG441:
mthi $1
sb $1, 4($1)
mthi $1
sb $1, 4($1)
TAG442:
lui $4, 7
and $1, $1, $1
mflo $3
mtlo $1
TAG443:
mthi $3
bne $3, $3, TAG444
mfhi $2
lui $3, 8
TAG444:
multu $3, $3
slt $1, $3, $3
addiu $1, $1, 1
bgtz $3, TAG445
TAG445:
lui $3, 13

```

```

sra $2, $3, 4
blez $2, TAG446
sll $0, $0, 0
TAG446:
sll $0, $0, 0
mtlo $3
mult $3, $3
sll $4, $3, 6
TAG447:
mthi $4
sll $0, $0, 0
bne $4, $4, TAG448
sll $0, $0, 0
TAG448:
sll $0, $0, 0
sra $4, $4, 6
lui $2, 5
lui $1, 10
TAG449:
mtlo $1
beq $1, $1, TAG450
lui $1, 8
mthi $1
TAG450:
sll $0, $0, 0
sll $0, $0, 0
nor $1, $1, $1
lui $2, 0
TAG451:
multu $2, $2
srl $2, $2, 0
lbu $4, 0($2)
beq $2, $2, TAG452
TAG452:
mtlo $4
sh $4, -252($4)
sll $3, $4, 4
sltu $4, $4, $3
TAG453:
lui $1, 14
lui $2, 8
bne $2, $2, TAG454
sll $0, $0, 0
TAG454:

```

```

andi $2, $2, 9
sh $2, 0($2)
beq $2, $2, TAG455
lui $4, 7
TAG455:
sll $0, $0, 0
divu $4, $4
sll $0, $0, 0
divu $3, $4
TAG456:
blez $4, TAG457
mtlo $4
sltu $4, $4, $4
lui $3, 10
TAG457:
mult $3, $3
beq $3, $3, TAG458
mtlo $3
lbu $2, 0($3)
TAG458:
mthi $2
mthi $2
bgez $2, TAG459
sltiu $4, $2, 5
TAG459:
subu $1, $4, $4
bne $1, $1, TAG460
lui $2, 9
lui $3, 6
TAG460:
blez $3, TAG461
or $3, $3, $3
bne $3, $3, TAG461
nor $1, $3, $3
TAG461:
divu $1, $1
sll $0, $0, 0
mthi $3
bne $1, $1, TAG462
TAG462:
andi $3, $3, 15
srl $2, $3, 3
bltz $2, TAG463
sb $3, 0($3)

```



```

TAG463:
addu $4, $2, $2
multu $2, $4
lbu $2, 0($2)
lbu $4, 0($2)
TAG464:
lui $1, 3
bgez $1, TAG465
sll $0, $0, 0
mfhi $2
TAG465:
beq $2, $2, TAG466
multu $2, $2
mthi $2
beq $2, $2, TAG466
TAG466:
subu $1, $2, $2
mthi $2
mthi $1
multu $1, $1
TAG467:
nor $1, $1, $1
lui $2, 13
beq $2, $2, TAG468
addiu $3, $2, 0
TAG468:
bltz $3, TAG469
mthi $3
addiu $2, $3, 7
beq $3, $3, TAG469
TAG469:
sll $0, $0, 0
subu $3, $3, $3
bne $2, $3, TAG470
mfhi $1
TAG470:
lui $4, 7
andi $1, $1, 3
mult $1, $1
bne $1, $4, TAG471
TAG471:
lhu $1, 0($1)
sw $1, 0($1)
lui $1, 15

```

```

bgez $1, TAG472
TAG472:
mthi $1
mflo $1
lui $3, 13
bgtz $3, TAG473
TAG473:
andi $3, $3, 5
mtlo $3
beq $3, $3, TAG474
addi $1, $3, 3
TAG474:
mthi $1
mfhi $2
bgtz $1, TAG475
mtlo $2
TAG475:
mfhi $2
lb $4, 0($2)
sw $2, 0($4)
bltz $2, TAG476
TAG476:
mtlo $4
mflo $1
mtlo $4
lui $4, 0
TAG477:
srav $4, $4, $4
mtlo $4
bne $4, $4, TAG478
lh $4, 0($4)
TAG478:
lui $3, 6
sll $0, $0, 0
lb $3, 0($4)
mfhi $1
TAG479:
mflo $3
beq $3, $1, TAG480
slt $2, $3, $1
lhu $3, 0($3)
TAG480:
multu $3, $3
mthi $3

```

bgez \$3, TAG481  
lui \$2, 3  
TAG481:  
bltz \$2, TAG482  
mtlo \$2  
mflo \$4  
mtlo \$4  
TAG482:  
mfhi \$2  
bne \$2, \$2, TAG483  
sll \$0, \$0, 0  
lbu \$4, 0(\$2)  
TAG483:  
mult \$4, \$4  
mflo \$3  
sw \$4, 0(\$4)  
beq \$4, \$3, TAG484  
TAG484:  
lh \$1, 0(\$3)  
mtlo \$1  
lui \$2, 5  
blez \$3, TAG485  
TAG485:  
lui \$1, 9  
mflo \$2  
mfhi \$2  
andi \$2, \$2, 8  
TAG486:  
lui \$1, 2  
mthi \$2  
bne \$2, \$2, TAG487  
divu \$1, \$1  
TAG487:  
bltz \$1, TAG488  
sll \$0, \$0, 0  
mfhi \$2  
lui \$1, 0  
TAG488:  
lw \$4, 0(\$1)  
lui \$2, 2  
mult \$4, \$1  
mult \$1, \$2  
TAG489:  
sll \$0, \$0, 0

```
mult $2, $2
sltu $3, $2, $2
mflo $1
TAG490:
lb $4, 0($1)
bltz $4, TAG491
mtlo $1
mthi $4
TAG491:
beq $4, $4, TAG492
mfhi $4
bne $4, $4, TAG492
lw $3, 0($4)
TAG492:
bgtz $3, TAG493
lui $4, 7
mtlo $3
mthi $4
TAG493:
beq $4, $4, TAG494
andi $1, $4, 15
mult $4, $4
lui $3, 13
TAG494:
mthi $3
beq $3, $3, TAG495
mflo $3
mfhi $4
TAG495:
sll $0, $0, 0
mthi $4
beq $4, $4, TAG496
lui $4, 1
TAG496:
bne $4, $4, TAG497
lui $3, 7
lui $1, 8
slt $3, $3, $4
TAG497:
blez $3, TAG498
lui $2, 15
bltz $3, TAG498
sh $3, 0($3)
TAG498:
```

```
subu $1, $2, $2
srav $1, $1, $2
div $1, $2
sb $2, 0($1)
TAG499:
mflo $2
blez $1, TAG500
lui $1, 15
divu $1, $1
TAG500:
andi $3, $1, 5
sll $0, $0, 0
lui $1, 14
bltz $1, TAG501
TAG501:
multu $1, $1
blez $1, TAG502
sra $2, $1, 12
mfhi $3
TAG502:
mtlo $3
lui $2, 1
sll $0, $0, 0
mtlo $2
TAG503:
sll $0, $0, 0
mthi $2
lui $2, 2
mflo $3
TAG504:
beq $3, $3, TAG505
lui $3, 11
bgez $3, TAG505
lui $3, 11
TAG505:
bltz $3, TAG506
mfhi $1
sll $0, $0, 0
mtlo $3
TAG506:
mult $1, $1
mtlo $1
beq $1, $1, TAG507
sll $0, $0, 0
```

```

TAG507:
lui $4, 2
slt $2, $1, $4
divu $2, $2
subu $1, $4, $1
TAG508:
multu $1, $1
srav $1, $1, $1
sll $0, $0, 0
sll $3, $1, 2
TAG509:
and $1, $3, $3
mfhi $1
mtlo $1
sll $0, $0, 0
TAG510:
blez $1, TAG511
lbu $4, 0($1)
lb $2, 0($4)
mult $1, $4
TAG511:
xor $3, $2, $2
bne $3, $3, TAG512
lui $4, 6
multu $3, $3
TAG512:
sll $0, $0, 0
mfhi $2
slti $3, $4, 2
mtlo $3
TAG513:
lbu $4, 0($3)
mfhi $4
beq $4, $4, TAG514
mfhi $1
TAG514:
mthi $1
mthi $1
sw $1, 0($1)
mflo $1
TAG515:
bltz $1, TAG516
slti $1, $1, 2
mfhi $4

```

```
sb $1, 0($1)
TAG516:
multu $4, $4
sw $4, 0($4)
mtlo $4
mtlo $4
TAG517:
blez $4, TAG518
slti $4, $4, 13
sw $4, 0($4)
mflo $3
TAG518:
multu $3, $3
bgez $3, TAG519
mtlo $3
multu $3, $3
TAG519:
bne $3, $3, TAG520
lb $2, 0($3)
bne $3, $3, TAG520
andi $3, $2, 14
TAG520:
bne $3, $3, TAG521
lui $2, 1
lbu $1, 0($3)
beq $3, $1, TAG521
TAG521:
lui $1, 11
lui $3, 6
mfhi $2
mfhi $2
TAG522:
nor $4, $2, $2
multu $4, $2
multu $4, $2
beq $4, $2, TAG523
TAG523:
addu $3, $4, $4
srl $3, $4, 11
mflo $2
srl $2, $3, 5
TAG524:
divu $2, $2
lui $1, 4
```

```

sll $0, $0, 0
lui $4, 4
TAG525:
blez $4, TAG526
mflo $1
bne $4, $4, TAG526
mfhi $1
TAG526:
sll $3, $1, 8
lh $1, 0($3)
blez $1, TAG527
mthi $1
TAG527:
sb $1, 0($1)
mtlo $1
blez $1, TAG528
multu $1, $1
TAG528:
lw $3, 0($1)
mthi $1
add $2, $1, $3
sh $1, 0($2)
TAG529:
add $2, $2, $2
mult $2, $2
beq $2, $2, TAG530
sw $2, 0($2)
TAG530:
lh $1, 0($2)
subu $2, $1, $1
addi $3, $2, 1
mtlo $2
TAG531:
lui $1, 0
bne $3, $3, TAG532
lui $4, 11
bltz $3, TAG532
TAG532:
sll $0, $0, 0
div $4, $4
sll $0, $0, 0
beq $4, $4, TAG533
TAG533:
lui $1, 8

```



```
mflo $2
beq $1, $2, TAG534
mfhi $3
TAG534:
sh $3, 0($3)
addiu $2, $3, 9
bgtz $2, TAG535
mtlo $3
TAG535:
mthi $2
divu $2, $2
bne $2, $2, TAG536
srlv $3, $2, $2
TAG536:
bltz $3, TAG537
mthi $3
bne $3, $3, TAG537
multu $3, $3
TAG537:
mflo $3
xor $1, $3, $3
mtlo $1
and $3, $3, $1
TAG538:
andi $4, $3, 15
lhu $1, 0($4)
multu $1, $4
multu $4, $4
TAG539:
andi $2, $1, 10
multu $2, $2
sb $2, 0($2)
lw $1, 0($2)
TAG540:
sub $3, $1, $1
sh $3, 0($3)
mfhi $2
lui $4, 10
TAG541:
and $2, $4, $4
beq $4, $4, TAG542
sllv $2, $4, $2
beq $2, $2, TAG542
TAG542:
```

```

srl $2, $2, 5
mflo $1
mthi $2
bgez $2, TAG543
TAG543:
mult $1, $1
bltz $1, TAG544
lhu $2, 0($1)
multu $1, $1
TAG544:
lui $4, 4
blez $2, TAG545
lui $3, 15
lui $1, 2
TAG545:
mflo $4
sw $1, 0($1)
mfhi $2
andi $1, $1, 6
TAG546:
mflo $3
blez $1, TAG547
sra $3, $1, 0
sb $3, 0($1)
TAG547:
nor $3, $3, $3
addiu $1, $3, 7
bne $3, $3, TAG548
sh $3, 0($1)
TAG548:
lui $2, 13
bne $2, $1, TAG549
mflo $1
bltz $1, TAG549
TAG549:
lui $1, 14
sll $0, $0, 0
sll $0, $0, 0
sw $1, 1($3)
TAG550:
lui $3, 8
mtlo $3
ori $2, $3, 9
divu $3, $2

```

```

TAG551:
srav $4, $2, $2
srav $2, $2, $4
beq $2, $2, TAG552
divu $4, $2
TAG552:
mtlo $2
sra $4, $2, 13
divu $2, $4
beq $2, $4, TAG553
TAG553:
mflo $2
sh $2, 0($4)
sll $3, $4, 12
beq $2, $4, TAG554
TAG554:
sll $0, $0, 0
srl $4, $3, 9
mthi $4
lui $3, 3
TAG555:
bgez $3, TAG556
div $3, $3
mfhi $1
addu $4, $1, $3
TAG556:
sra $2, $4, 15
slti $2, $4, 10
bltz $2, TAG557
mult $2, $4
TAG557:
bltz $2, TAG558
mflo $1
add $1, $2, $2
lui $2, 7
TAG558:
sll $1, $2, 11
lui $3, 3
or $4, $2, $3
bltz $4, TAG559
TAG559:
lui $4, 8
sll $0, $0, 0
sll $0, $0, 0

```

```
xori $4, $4, 12
TAG560:
mthi $4
and $3, $4, $4
mtlo $4
sllv $1, $4, $3
TAG561:
bltz $1, TAG562
mult $1, $1
sb $1, 0($1)
sw $1, 0($1)
TAG562:
sll $0, $0, 0
sll $0, $0, 0
srav $4, $1, $1
blez $4, TAG563
TAG563:
mfhi $4
mfhi $3
mflo $2
lui $4, 10
TAG564:
mult $4, $4
sll $0, $0, 0
mflo $3
sltu $3, $4, $4
TAG565:
mflo $4
mult $4, $4
bgez $3, TAG566
multu $3, $3
TAG566:
lui $2, 4
beq $4, $2, TAG567
sw $2, 0($4)
mfhi $2
TAG567:
lui $4, 3
addiu $3, $2, 14
blez $3, TAG568
lbu $2, 0($2)
TAG568:
addi $2, $2, 7
sb $2, 0($2)
```

```

slti $4, $2, 9
bltz $2, TAG569
TAG569:
lb $2, 0($4)
lui $2, 3
addu $4, $4, $4
sll $0, $0, 0
TAG570:
lui $4, 8
slti $4, $3, 2
blez $3, TAG571
subu $2, $3, $3
TAG571:
bne $2, $2, TAG572
mult $2, $2
mult $2, $2
srlv $1, $2, $2
TAG572:
bne $1, $1, TAG573
lw $4, 0($1)
mfhi $3
bltz $4, TAG573
TAG573:
mflo $2
beq $2, $2, TAG574
mflo $2
mthi $2
TAG574:
sw $2, 0($2)
bgez $2, TAG575
mflo $2
sll $2, $2, 3
TAG575:
lui $2, 13
xor $3, $2, $2
addiu $4, $2, 1
bne $4, $3, TAG576
TAG576:
mtlo $4
andi $3, $4, 3
lui $1, 6
lui $1, 6
TAG577:
mflo $1

```

```

mtlo $1
mult $1, $1
mflo $3
TAG578:
mfhi $1
sltiu $2, $1, 0
sw $3, -169($1)
div $2, $1
TAG579:
bgez $2, TAG580
lui $1, 6
subu $1, $2, $1
bgtz $1, TAG580
TAG580:
mthi $1
mfhi $1
mult $1, $1
subu $3, $1, $1
TAG581:
bne $3, $3, TAG582
mthi $3
mthi $3
sh $3, 0($3)
TAG582:
mthi $3
beq $3, $3, TAG583
sw $3, 0($3)
mult $3, $3
TAG583:
beq $3, $3, TAG584
lui $3, 0
mflo $1
beq $3, $1, TAG584
TAG584:
lui $3, 3
lui $4, 10
beq $4, $3, TAG585
sll $0, $0, 0
TAG585:
sll $0, $0, 0
addu $3, $4, $1
lui $4, 10
sll $0, $0, 0
TAG586:

```

```

mflo $3
lhu $2, 0($3)
ori $1, $3, 3
lui $4, 14
TAG587:
div $4, $4
mfhi $4
mflo $4
sb $4, 0($4)
TAG588:
mtlo $4
sra $1, $4, 12
bgez $1, TAG589
sb $1, 0($4)
TAG589:
mtlo $1
sh $1, 0($1)
beq $1, $1, TAG590
mult $1, $1
TAG590:
xori $2, $1, 9
mfhi $2
sll $3, $1, 8
bgez $3, TAG591
TAG591:
sh $3, 0($3)
bltz $3, TAG592
mfhi $2
srlv $2, $3, $3
TAG592:
lh $3, 0($2)
xor $1, $2, $2
sra $2, $2, 7
slt $1, $2, $2
TAG593:
sll $1, $1, 12
mtlo $1
mtlo $1
multu $1, $1
TAG594:
lui $3, 2
mthi $1
sll $0, $0, 0
sll $1, $3, 13

```

```

TAG595:
subu $4, $1, $1
xori $3, $4, 8
sll $3, $4, 9
mfhi $1
TAG596:
mfhi $3
beq $3, $3, TAG597
sw $3, 0($3)
slti $3, $3, 1
TAG597:
sh $3, 0($3)
multu $3, $3
sll $1, $3, 13
lui $1, 5
TAG598:
lui $2, 1
xor $1, $1, $1
sh $1, 0($1)
lh $2, 0($1)
TAG599:
bne $2, $2, TAG600
multu $2, $2
lui $4, 1
lui $2, 15
TAG600:
mfhi $3
multu $2, $2
beq $2, $2, TAG601
lui $4, 9
TAG601:
divu $4, $4
xor $1, $4, $4
mfhi $3
addiu $1, $1, 15
TAG602:
bgez $1, TAG603
div $1, $1
beq $1, $1, TAG603
lh $4, 0($1)
TAG603:
lui $1, 13
mthi $4
mthi $1

```



```

or $2, $4, $4
TAG604:
multu $2, $2
lui $2, 10
lui $4, 8
subu $1, $2, $2
TAG605:
mflo $3
sh $3, 0($1)
bne $3, $1, TAG606
lhu $4, 0($1)
TAG606:
mfhi $3
sb $3, 0($3)
lb $2, 0($3)
beq $4, $4, TAG607
TAG607:
lui $4, 15
lui $3, 8
beq $3, $2, TAG608
multu $3, $3
TAG608:
bne $3, $3, TAG609
sll $0, $0, 0
lui $3, 2
div $3, $3
TAG609:
srav $3, $3, $3
mthi $3
nor $3, $3, $3
sll $0, $0, 0
TAG610:
bgtz $3, TAG611
lui $1, 5
div $3, $1
mthi $3
TAG611:
sllv $4, $1, $1
mthi $4
sltu $4, $4, $1
xori $3, $1, 10
TAG612:
div $3, $3
bgtz $3, TAG613

```

```

sll $0, $0, 0
bne $3, $3, TAG613
TAG613:
mfhi $4
mflo $4
beq $3, $4, TAG614
multu $3, $4
TAG614:
sb $4, 0($4)
blez $4, TAG615
ori $3, $4, 13
mthi $3
TAG615:
or $1, $3, $3
sra $3, $1, $1
beq $3, $1, TAG616
div $1, $1
TAG616:
multu $3, $3
sh $3, 0($3)
multu $3, $3
mfhi $1
TAG617:
mfhi $4
mflo $4
mthi $4
lbu $1, 0($4)
TAG618:
lhu $1, 0($1)
blez $1, TAG619
addiu $4, $1, 2
sra $3, $4, $1
TAG619:
lw $1, 0($3)
mflo $1
srlv $3, $1, $1
sh $3, 0($3)
TAG620:
mult $3, $3
sh $3, 0($3)
and $1, $3, $3
lui $2, 13
TAG621:
bne $2, $2, TAG622

```

```

sll $0, $0, 0
sll $0, $0, 0
subu $1, $3, $3
TAG622:
bgez $1, TAG623
xori $4, $1, 7
mfhi $3
beq $1, $4, TAG623
TAG623:
mthi $3
multu $3, $3
sh $3, 0($3)
sw $3, 0($3)
TAG624:
bne $3, $3, TAG625
mfhi $4
lui $2, 2
beq $3, $3, TAG625
TAG625:
addu $4, $2, $2
addiu $3, $4, 11
mtlo $2
sll $0, $0, 0
TAG626:
addiu $4, $2, 2
mfhi $4
sw $4, 0($4)
mfhi $2
TAG627:
sw $2, 0($2)
slt $4, $2, $2
lw $4, 0($2)
mfhi $2
TAG628:
lhu $3, 0($2)
srl $3, $3, 4
bgez $3, TAG629
mthi $2
TAG629:
lui $3, 9
sll $0, $0, 0
mtlo $3
lui $2, 7
TAG630:

```

```

mflo $4
lui $3, 5
beq $3, $3, TAG631
sll $0, $0, 0
TAG631:
divu $3, $3
lui $3, 15
bgtz $3, TAG632
multu $3, $3
TAG632:
andi $2, $3, 14
sll $0, $0, 0
mthi $2
lui $2, 7
TAG633:
bgtz $2, TAG634
multu $2, $2
mthi $2
nor $1, $2, $2
TAG634:
sll $1, $1, 15
sltu $4, $1, $1
mflo $2
lui $3, 12
TAG635:
mult $3, $3
bne $3, $3, TAG636
lui $4, 0
mtlo $3
TAG636:
mthi $4
lui $4, 9
mflo $2
sra $1, $4, 4
TAG637:
mthi $1
beq $1, $1, TAG638
andi $4, $1, 3
multu $1, $1
TAG638:
xori $1, $4, 13
addu $3, $1, $4
and $3, $4, $1
sra $4, $3, 1

```

```

TAG639:
sh $4, 0($4)
lui $4, 12
mfhi $2
nor $1, $4, $4
TAG640:
subu $1, $1, $1
lh $3, 0($1)
bltz $1, TAG641
srl $1, $1, 2
TAG641:
multu $1, $1
andi $3, $1, 7
mflo $2
lui $3, 8
TAG642:
mult $3, $3
bne $3, $3, TAG643
sll $0, $0, 0
lui $1, 4
TAG643:
bltz $1, TAG644
lui $1, 2
sll $0, $0, 0
mflo $1
TAG644:
add $4, $1, $1
multu $1, $1
beq $1, $1, TAG645
multu $4, $1
TAG645:
lhu $3, 0($4)
mult $4, $3
bgtz $4, TAG646
or $3, $4, $3
TAG646:
lui $3, 2
sll $0, $0, 0
sll $0, $0, 0
mthi $3
TAG647:
multu $2, $2
mflo $3
srl $1, $2, 3

```

```
bltz $1, TAG648
TAG648:
mfhi $3
slti $3, $3, 12
lui $3, 14
sll $0, $0, 0
TAG649:
mthi $3
mtlo $3
bltz $3, TAG650
mtlo $3
TAG650:
bltz $3, TAG651
srlv $1, $3, $3
lui $2, 9
sltiu $1, $1, 4
TAG651:
bne $1, $1, TAG652
lui $4, 5
blez $1, TAG652
lhu $2, 0($1)
TAG652:
subu $2, $2, $2
srav $3, $2, $2
bne $2, $2, TAG653
lui $2, 4
TAG653:
bltz $2, TAG654
mtlo $2
subu $3, $2, $2
mflo $1
TAG654:
div $1, $1
srl $1, $1, 0
bne $1, $1, TAG655
xori $4, $1, 10
TAG655:
beq $4, $4, TAG656
srlv $1, $4, $4
sltiu $2, $4, 8
sllv $2, $2, $4
TAG656:
slti $4, $2, 13
sll $0, $0, 0
```

```

beq $2, $4, TAG657
multu $2, $2
TAG657:
mfhi $3
addu $1, $3, $4
lui $4, 15
lw $2, 0($1)
TAG658:
mthi $2
sll $0, $0, 0
srl $2, $2, 14
sh $2, -19456($2)
TAG659:
blez $2, TAG660
sra $2, $2, 14
and $3, $2, $2
addu $1, $2, $2
TAG660:
div $1, $1
bne $1, $1, TAG661
sh $1, 0($1)
bgtz $1, TAG661
TAG661:
sh $1, 0($1)
xori $4, $1, 5
andi $2, $4, 4
sllv $4, $4, $2
TAG662:
mfhi $2
bltz $4, TAG663
lhu $3, 0($4)
mult $4, $2
TAG663:
ori $4, $3, 13
andi $1, $4, 11
mthi $4
lb $2, 0($4)
TAG664:
lbu $2, 0($2)
addiu $2, $2, 6
mult $2, $2
lui $1, 12
TAG665:
or $2, $1, $1

```

```
lui $2, 9
nor $4, $2, $2
sll $0, $0, 0
TAG666:
mfhi $2
or $2, $2, $2
lui $2, 3
bltz $2, TAG667
TAG667:
mfhi $1
mthi $2
mthi $2
beq $2, $1, TAG668
TAG668:
lb $1, 0($1)
sll $1, $1, 3
lhu $1, 0($1)
blez $1, TAG669
TAG669:
sh $1, -19456($1)
bltz $1, TAG670
sh $1, -19456($1)
bgtz $1, TAG670
TAG670:
sll $0, $0, 0
beq $4, $1, TAG671
subu $1, $1, $4
blez $4, TAG671
TAG671:
mtlo $1
lui $3, 14
bltz $1, TAG672
lui $2, 3
TAG672:
sra $2, $2, 0
addiu $1, $2, 15
sll $0, $0, 0
sll $0, $0, 0
TAG673:
xor $1, $1, $1
mtlo $1
bgez $1, TAG674
lui $2, 3
TAG674:
```



```

beq $2, $2, TAG675
sll $0, $0, 0
lhu $1, 0($2)
multu $2, $1
TAG675:
beq $1, $1, TAG676
mult $1, $1
mfhi $1
bgtz $1, TAG676
TAG676:
sll $2, $1, 15
sb $2, 0($1)
mult $1, $1
mthi $1
TAG677:
lui $1, 1
srl $3, $1, 7
mthi $2
lhu $3, 0($2)
TAG678:
mfhi $3
bne $3, $3, TAG679
lui $4, 4
sra $4, $3, 1
TAG679:
mflo $3
lh $3, 0($3)
bltz $3, TAG680
ori $2, $3, 2
TAG680:
mtlo $2
bgtz $2, TAG681
lw $4, -19458($2)
sb $4, 0($4)
TAG681:
sll $0, $0, 0
mthi $4
blez $4, TAG682
sll $0, $0, 0
TAG682:
or $1, $3, $3
mflo $4
bgtz $1, TAG683
lui $4, 10

```

```

TAG683:
lui $1, 1
xor $2, $1, $4
blez $4, TAG684
mthi $4
TAG684:
bltz $2, TAG685
lui $4, 1
lui $4, 4
bltz $4, TAG685
TAG685:
mtlo $4
mtlo $4
mflo $1
sll $0, $0, 0
TAG686:
subu $4, $1, $1
mfhi $2
sll $0, $0, 0
divu $2, $2
TAG687:
divu $2, $2
lui $2, 1
sll $0, $0, 0
bltz $2, TAG688
TAG688:
addu $2, $2, $2
mtlo $2
lui $4, 2
sra $2, $4, 8
TAG689:
sll $0, $0, 0
mflo $2
lui $3, 0
mtlo $2
TAG690:
bgez $3, TAG691
sllv $3, $3, $3
add $3, $3, $3
bne $3, $3, TAG691
TAG691:
sh $3, 0($3)
bltz $3, TAG692
mthi $3

```

```

mflo $4
TAG692:
divu $4, $4
sll $1, $4, 14
sll $0, $0, 0
bne $4, $1, TAG693
TAG693:
slti $3, $2, 5
lui $2, 0
sh $2, 0($2)
sw $2, 0($3)
TAG694:
mfhi $3
mtlo $3
lhu $1, 0($3)
lui $1, 10
TAG695:
beq $1, $1, TAG696
lui $3, 1
xori $3, $1, 8
sh $1, 0($3)
TAG696:
bgtz $3, TAG697
sll $0, $0, 0
bne $3, $3, TAG697
sh $3, 0($3)
TAG697:
xori $3, $3, 15
sra $3, $3, 8
mtlo $3
mtlo $3
TAG698:
lui $2, 10
and $3, $3, $3
mult $2, $2
blez $3, TAG699
TAG699:
lui $2, 0
divu $3, $3
bltz $2, TAG700
sw $2, -256($3)
TAG700:
mthi $2
multu $2, $2

```

```

srl $1, $2, 2
add $4, $1, $2
TAG701:
multu $4, $4
lui $2, 3
lui $2, 11
sra $2, $4, 8
TAG702:
sb $2, 0($2)
bne $2, $2, TAG703
lw $2, 0($2)
multu $2, $2
TAG703:
lui $4, 8
sh $2, 0($2)
srl $3, $4, 10
mflo $4
TAG704:
lui $3, 10
div $3, $3
bne $3, $4, TAG705
nor $4, $4, $4
TAG705:
sll $0, $0, 0
subu $4, $4, $2
mflo $3
blez $4, TAG706
TAG706:
slt $2, $3, $3
beq $2, $2, TAG707
mthi $2
lui $1, 6
TAG707:
bltz $1, TAG708
mfhi $3
bgez $1, TAG708
lhu $1, 0($1)
TAG708:
mult $1, $1
sb $1, 0($1)
lui $4, 12
lui $4, 8
TAG709:
mfhi $4

```

```

lui $4, 3
sll $0, $0, 0
sltiu $3, $4, 3
TAG710:
multu $3, $3
lbu $3, 0($3)
mflo $1
lui $2, 0
TAG711:
lh $3, 0($2)
bgez $3, TAG712
srlv $3, $2, $2
beq $3, $3, TAG712
TAG712:
mfhi $3
blez $3, TAG713
mflo $4
ori $1, $4, 10
TAG713:
lh $3, 0($1)
bltz $1, TAG714
lui $3, 14
multu $3, $3
TAG714:
addu $1, $3, $3
sll $0, $0, 0
sll $2, $3, 0
sll $0, $0, 0
TAG715:
subu $3, $2, $2
sll $0, $0, 0
mtlo $2
lui $1, 5
TAG716:
sll $0, $0, 0
srl $4, $1, 9
andi $2, $1, 9
sll $0, $0, 0
TAG717:
sb $4, -640($4)
lw $4, -640($4)
bgtz $4, TAG718
srav $2, $4, $4
TAG718:

```

```

blez $2, TAG719
lb $2, 0($2)
bne $2, $2, TAG719
andi $1, $2, 7
TAG719:
mult $1, $1
sltiu $2, $1, 6
lui $2, 4
lui $3, 14
TAG720:
sll $0, $0, 0
lui $1, 6
mfhi $1
sll $2, $1, 6
TAG721:
lh $2, 0($2)
bltz $2, TAG722
lhu $2, 0($2)
bgez $2, TAG722
TAG722:
sll $2, $2, 5
blez $2, TAG723
sub $3, $2, $2
mflo $3
TAG723:
lui $2, 2
mult $3, $3
lui $3, 10
addiu $1, $2, 15
TAG724:
sll $0, $0, 0
sll $0, $0, 0
lui $4, 4
beq $1, $1, TAG725
TAG725:
sll $0, $0, 0
mfhi $1
srlv $4, $4, $4
blez $4, TAG726
TAG726:
sll $0, $0, 0
lui $2, 2
blez $4, TAG727
ori $2, $4, 5

```

```

TAG727:
sll $0, $0, 0
bltz $2, TAG728
div $2, $2
bne $2, $2, TAG728
TAG728:
sll $0, $0, 0
bgez $2, TAG729
sll $0, $0, 0
bgtz $4, TAG729
TAG729:
sll $0, $0, 0
sltu $2, $1, $4
srl $1, $4, 12
mflo $1
TAG730:
bgez $1, TAG731
sb $1, 0($1)
mfhi $1
mthi $1
TAG731:
blez $1, TAG732
sb $1, 0($1)
nor $4, $1, $1
mtlo $4
TAG732:
sll $0, $0, 0
bne $1, $4, TAG733
lw $1, 2($4)
mflo $2
TAG733:
lb $3, 0($2)
mfhi $2
blez $2, TAG734
mthi $3
TAG734:
mtlo $2
lui $1, 13
mthi $1
lui $3, 3
TAG735:
addiu $3, $3, 14
mfhi $3
mthi $3

```

```

lui $2, 10
TAG736:
div $2, $2
sll $0, $0, 0
subu $1, $2, $2
mult $1, $2
TAG737:
sb $1, 0($1)
add $3, $1, $1
lui $3, 4
bgez $3, TAG738
TAG738:
lui $1, 13
bltz $1, TAG739
srl $1, $3, 6
addu $1, $1, $1
TAG739:
sb $1, -8192($1)
srl $3, $1, 1
beq $3, $1, TAG740
lhu $3, -4096($3)
TAG740:
nor $3, $3, $3
divu $3, $3
mult $3, $3
sb $3, 257($3)
TAG741:
sll $0, $0, 0
bne $3, $3, TAG742
sb $3, 257($3)
bne $2, $2, TAG742
TAG742:
lui $4, 4
sll $0, $0, 0
mfhi $4
sll $0, $0, 0
TAG743:
bltz $4, TAG744
mflo $4
mult $4, $4
sll $0, $0, 0
TAG744:
andi $3, $1, 0
mfhi $3

```



```

addiu $4, $3, 15
divu $3, $3
TAG745:
multu $4, $4
srlv $3, $4, $4
lw $3, 0($4)
sll $0, $0, 0
TAG746:
mult $1, $1
lw $1, -8192($1)
lb $3, -511($1)
beq $3, $1, TAG747
TAG747:
sltu $1, $3, $3
beq $3, $1, TAG748
mflo $4
srlv $1, $3, $4
TAG748:
sltu $2, $1, $1
blez $1, TAG749
slti $1, $1, 11
lui $2, 4
TAG749:
mtlo $2
mtlo $2
beq $2, $2, TAG750
multu $2, $2
TAG750:
nop
nop
test_end:
beq $0, $0, test_end
nop

```

输出

```

@00003000: $ 1 <= 00000004
@00003004: $ 2 <= 0000000b
@00003008: $ 3 <= 00000005
@0000300c: $ 4 <= 00000001
@00003010: *00000000 <= 00000004
@00003014: *00000004 <= 0000000b
@00003018: *00000008 <= 00000005
@0000301c: *0000000c <= 0000000b
@00003020: *00000010 <= 00000004
@00003024: *00000014 <= 00000004

```

@00003028: \*00000018 <= 00000004  
@0000302c: \*0000001c <= 00000001  
@00003030: \*00000020 <= 00000001  
@00003034: \*00000024 <= 0000000b  
@00003038: \*00000028 <= 00000004  
@0000303c: \*0000002c <= 00000004  
@00003040: \*00000030 <= 0000000b  
@00003044: \*00000034 <= 00000004  
@00003048: \*00000038 <= 00000005  
@0000304c: \*0000003c <= 00000005  
@00003050: \*00000040 <= 00000001  
@00003054: \*00000044 <= 00000005  
@00003058: \*00000048 <= 00000001  
@0000305c: \*0000004c <= 00000005  
@00003060: \*00000050 <= 0000000b  
@00003064: \*00000054 <= 00000004  
@00003068: \*00000058 <= 0000000b  
@0000306c: \*0000005c <= 00000005  
@00003070: \*00000060 <= 0000000b  
@00003074: \*00000064 <= 00000001  
@00003078: \*00000068 <= 0000000b  
@0000307c: \*0000006c <= 00000004  
@00003080: \*00000070 <= 00000005  
@00003084: \*00000074 <= 00000001  
@00003088: \*00000078 <= 00000004  
@0000308c: \*0000007c <= 00000004  
@00003090: \$ 3 <= 00010000  
@00003094: \$ 2 <= 00000000  
@000030a4: \$ 1 <= 000a0000  
@000030b4: \$ 1 <= 000a0000  
@000030c0: \$ 4 <= 00090000  
@000030d0: \$ 2 <= 00000000  
@000030d4: \$ 3 <= 00000000  
@000030d8: \*00000000 <= 00000000  
@000030f4: \$ 3 <= 00000000  
@00003100: \$ 4 <= 00000000  
@00003108: \$ 3 <= 00000000  
@00003114: \$ 1 <= 00000000  
@00003118: \$ 1 <= 00000000  
@0000311c: \*00000000 <= 00000000  
@00003124: \$ 1 <= 00000000  
@00003128: \$ 3 <= 00000000  
@0000312c: \*00000000 <= 00000000  
@00003134: \$ 2 <= 00000000

@0000313c: \$ 1 <= 00000000  
@00003140: \$ 1 <= 00000000  
@00003150: \$ 4 <= 00000000  
@00003154: \$ 1 <= 00000000  
@00003158: \*00000000 <= 00000000  
@0000315c: \$ 3 <= 00000000  
@00003160: \$ 2 <= 00000000  
@00003164: \$ 4 <= 00000000  
@00003168: \*00000000 <= 00000000  
@00003170: \$ 4 <= 00000000  
@00003174: \$ 4 <= 00000000  
@00003178: \*00000000 <= 00000000  
@0000317c: \*00000000 <= 00000000  
@00003180: \$ 3 <= 00000000  
@00003184: \$ 2 <= 00000000  
@00003194: \$ 2 <= 000e0000  
@000031a4: \$ 2 <= 000a0000  
@000031a8: \$ 2 <= 00000000  
@000031ac: \$ 4 <= 000a0000  
@000031c0: \$ 1 <= 000f0000  
@000031c4: \$ 3 <= 000e0000  
@000031cc: \$ 4 <= 000e0000  
@000031d0: \$ 2 <= 00000000  
@000031e8: \$ 3 <= 000001c0  
@000031f4: \*00000000 <= 000001c0  
@000031fc: \$ 1 <= 000001c3  
@00003200: \$ 3 <= 00000000  
@00003208: \$ 4 <= 000a0000  
@00003214: \$ 4 <= 000001c3  
@00003218: \$ 4 <= 00000003  
@0000321c: \$ 1 <= 00090000  
@00003224: \$ 4 <= 00000000  
@00003230: \$ 2 <= 00031000  
@00003234: \$ 4 <= 00000000  
@00003240: \$ 2 <= 00000000  
@00003244: \$ 3 <= 000000c0  
@00003248: \$ 3 <= ffffffff c0  
@0000324c: \$ 4 <= ffffffff ca  
@00003258: \*00000000 <= 000001ca  
@00003260: \$ 3 <= 00010000  
@00003268: \$ 3 <= 00010009  
@0000326c: \*00000000 <= 000001ca  
@00003274: \$ 4 <= 00000000  
@00003284: \$ 2 <= 00040000

@00003288: \$ 1 <= 00090000  
@0000328c: \$ 3 <= 00100000  
@00003290: \$ 3 <= 0010000f  
@00003298: \$ 3 <= 000e0000  
@000032a0: \$ 3 <= 000e0000  
@000032a8: \$ 2 <= 001c0000  
@000032b8: \$ 2 <= 00010000  
@000032c4: \$ 4 <= 0009000a  
@000032d0: \$ 3 <= 005a0000  
@000032e0: \$ 1 <= 000d0000  
@000032ec: \$ 4 <= 00000000  
@000032f0: \*00000000 <= 00000000  
@000032f4: \$ 2 <= 00000001  
@000032f8: \$ 1 <= 00000000  
@00003304: \$ 4 <= 00000001  
@0000331c: \$ 3 <= 00010000  
@00003330: \$ 2 <= 00000000  
@00003338: \$ 4 <= 00000000  
@0000333c: \$ 3 <= 00000000  
@00003340: \$ 3 <= 00080000  
@00003344: \$ 1 <= 00040000  
@0000334c: \$ 2 <= 00000000  
@00003354: \$ 4 <= 00000000  
@0000335c: \$ 3 <= 00000000  
@00003360: \$ 1 <= 00000000  
@00003364: \$ 2 <= 00000000  
@0000336c: \$ 2 <= 00050000  
@00003370: \$ 3 <= 00000000  
@00003374: \*00000000 <= 00000000  
@00003378: \*00000000 <= 00000000  
@00003380: \*00000000 <= 00000000  
@00003380: \*00000000 <= 00000000  
@00003384: \$ 4 <= 00000000  
@00003388: \$ 1 <= 00000000  
@00003390: \$ 4 <= 00000000  
@00003398: \$ 3 <= 000c0000  
@0000339c: \$ 3 <= 00000000  
@000033a4: \$ 3 <= 000d0000  
@000033b0: \$ 2 <= 00020000  
@000033b4: \$ 1 <= 00020000  
@000033c0: \$ 4 <= 000b0000  
@000033d8: \$ 2 <= 000b0000  
@000033dc: \$ 1 <= fff4ffff  
@000033e0: \$ 2 <= 00000000

@000033e8: \$ 1 <= fff4ffff  
@000033ec: \$ 4 <= 00000000  
@000033fc: \$ 4 <= 000f0000  
@00003408: \$ 4 <= 00000000  
@0000340c: \$ 3 <= 000a0000  
@00003420: \$ 4 <= 00000000  
@00003428: \$ 4 <= 00000000  
@00003430: \$ 4 <= 00040000  
@00003430: \$ 4 <= 00040000  
@00003434: \$ 1 <= 0004000e  
@0000343c: \$ 2 <= 00000000  
@00003444: \*00000000 <= 00000000  
@00003448: \$ 3 <= 00000000  
@0000344c: \*00000000 <= 00000000  
@00003450: \$ 3 <= 00000000  
@00003454: \$ 1 <= 000f0000  
@00003458: \$ 2 <= 00000000  
@00003460: \$ 2 <= 000b0000  
@00003460: \$ 2 <= 000b0000  
@0000346c: \$ 1 <= 00005800  
@00003470: \$ 3 <= 00005800  
@00003474: \$ 2 <= 00000000  
@00003478: \*00000000 <= 00005800  
@0000347c: \$ 4 <= 00005800  
@00003480: \$ 4 <= 000b0000  
@00003484: \$ 1 <= 00000000  
@00003488: \$ 2 <= fff4ffff  
@00003498: \$ 4 <= 000e0000  
@0000349c: \$ 2 <= 000e0000  
@000034a4: \$ 4 <= 00000000  
@000034b0: \$ 1 <= 000b0000  
@000034b4: \$ 1 <= 00000001  
@000034b8: \$ 3 <= 00080000  
@000034c4: \$ 4 <= 00000001  
@000034cc: \$ 2 <= 00000000  
@000034d4: \$ 4 <= 00000000  
@000034ec: \$ 3 <= 00000000  
@000034f4: \*00000000 <= 00000000  
@000034f8: \$ 2 <= 00000000  
@00003500: \*00000000 <= 00000000  
@00003504: \$ 1 <= 00000000  
@0000350c: \$ 1 <= 000b0000  
@00003510: \$ 3 <= 000b0000  
@00003514: \$ 2 <= 000b0000

@00003518: \$ 1 <= 00000000  
@0000351c: \$ 3 <= 00000000  
@00003520: \$ 2 <= 00000000  
@00003528: \$ 3 <= 00000000  
@0000352c: \$ 2 <= 00000000  
@00003530: \$ 4 <= 00000000  
@00003538: \$ 4 <= 00000000  
@00003544: \$ 3 <= 00030000  
@0000354c: \$ 1 <= 00040000  
@00003550: \$ 4 <= 0004000f  
@00003554: \$ 2 <= 00000000  
@0000355c: \$ 2 <= 00000000  
@00003560: \$ 1 <= 00000000  
@00003564: \$ 3 <= 00000000  
@00003568: \$ 2 <= 00000000  
@0000356c: \$ 4 <= 00000000  
@00003578: \$ 2 <= 0000000c  
@0000357c: \*00000000 <= 0000000c  
@00003580: \*0000000c <= 0000000c  
@00003588: \*0000000c <= 0000000c  
@00003590: \$ 1 <= 00000000  
@000035a0: \$ 2 <= 0000000e  
@000035a4: \$ 3 <= 0000000e  
@000035a8: \$ 1 <= 0000000e  
@000035b0: \*0000000c <= 000e000c  
@000035c0: \$ 4 <= 00050000  
@000035c4: \$ 3 <= 00000000  
@000035cc: \$ 2 <= 0000000c  
@000035d0: \$ 2 <= 00000000  
@000035d4: \*00000000 <= 00000000  
@000035dc: \$ 1 <= 00000000  
@000035e0: \*00000000 <= 00000000  
@000035e4: \$ 1 <= 00000000  
@000035ec: \$ 2 <= 00000000  
@000035f4: \$ 1 <= 000f0000  
@000035fc: \$ 3 <= 00000000  
@00003600: \$ 1 <= 000c0000  
@00003608: \$ 1 <= 000c0000  
@0000360c: \$ 1 <= 00000000  
@00003610: \$ 1 <= 00020000  
@00003618: \$ 1 <= 00020002  
@0000361c: \$ 1 <= 0002000c  
@00003620: \$ 1 <= 000e0000  
@00003624: \$ 1 <= c0000000

@0000362c: \$ 2 <= 00020000  
@00003630: \$ 2 <= 000e0000  
@00003634: \$ 2 <= 000e000e  
@00003650: \$ 4 <= 00000280  
@00003654: \$ 4 <= 00070000  
@0000365c: \$ 2 <= 00050000  
@00003660: \$ 3 <= 00030000  
@00003670: \$ 2 <= 00000000  
@00003674: \$ 2 <= 00000000  
@0000367c: \$ 4 <= 00000000  
@00003684: \$ 2 <= 00000000  
@00003688: \$ 3 <= 00000019  
@0000368c: \$ 1 <= 00000000  
@00003690: \$ 3 <= 00000000  
@00003694: \$ 3 <= 00050000  
@00003698: \$ 2 <= 0005000a  
@0000369c: \$ 3 <= 00000001  
@000036a0: \$ 3 <= 00000001  
@000036a4: \$ 3 <= 00030000  
@000036ac: \$ 4 <= 00000001  
@000036b0: \$ 2 <= 00020000  
@000036c0: \$ 3 <= 00000000  
@000036c8: \$ 4 <= 00000001  
@000036d4: \$ 1 <= 00030000  
@000036d8: \$ 4 <= 00003000  
@000036dc: \$ 4 <= 00000001  
@000036e4: \*00000000 <= 00000100  
@000036e8: \$ 1 <= 00000001  
@000036f0: \$ 2 <= 00000001  
@000036f4: \$ 3 <= 00000001  
@000036f8: \$ 2 <= 00000001  
@000036fc: \$ 1 <= 00000001  
@00003700: \$ 2 <= 00030000  
@00003704: \$ 4 <= 00000000  
@00003708: \$ 1 <= 00000000  
@0000370c: \$ 3 <= 00000000  
@00003710: \$ 3 <= 000e0000  
@00003714: \$ 2 <= 00000000  
@00003720: \$ 2 <= 00000000  
@0000372c: \*00000000 <= 00000000  
@00003730: \*00000000 <= 00000000  
@00003734: \$ 1 <= 00000000  
@00003738: \$ 2 <= 00000000  
@00003748: \$ 3 <= ffffffff

@00003750: \*00000000 <= 000000ff  
@00003754: \*00000000 <= 0000ffff  
@00003758: \$ 3 <= 00000000  
@0000375c: \$ 2 <= 00000000  
@00003760: \$ 3 <= 00010000  
@0000376c: \$ 3 <= 000000ff  
@00003770: \$ 3 <= 00000000  
@00003774: \$ 3 <= 00000001  
@0000377c: \$ 2 <= 00000000  
@00003780: \$ 3 <= 0000ffff  
@0000378c: \$ 3 <= 00050000  
@00003798: \$ 3 <= 00000000  
@000037a4: \$ 2 <= 00000000  
@000037a8: \$ 3 <= 00000000  
@000037ac: \$ 3 <= 0000ffff  
@000037c0: \$ 4 <= 00010006  
@000037c4: \$ 3 <= 00000040  
@000037c8: \$ 4 <= 00000001  
@000037cc: \*00000040 <= 00000040  
@000037e0: \*00000000 <= 00000000  
@000037e8: \$ 1 <= 00000001  
@000037ec: \$ 1 <= 00000001  
@000037f4: \$ 1 <= 000b0000  
@00003808: \$ 1 <= 16000000  
@00003814: \$ 4 <= 00070000  
@00003820: \$ 2 <= 000f0000  
@00003834: \$ 4 <= 000e0000  
@0000383c: \$ 3 <= 00000000  
@00003840: \$ 1 <= 00000000  
@00003848: \$ 3 <= 00000000  
@00003850: \$ 2 <= 00000000  
@0000385c: \$ 1 <= 00000000  
@00003864: \$ 1 <= 00080000  
@00003868: \$ 3 <= 00080000  
@0000386c: \$ 2 <= 00080000  
@00003880: \$ 4 <= 00000000  
@00003884: \$ 3 <= 00080007  
@00003888: \$ 3 <= 00080007  
@0000388c: \$ 3 <= 20001c00  
@00003890: \$ 1 <= 08000700  
@000038a0: \$ 2 <= 00080000  
@000038a8: \$ 3 <= 00060000  
@000038b4: \$ 4 <= 00000000  
@000038c0: \$ 1 <= 00000000



@000038c8: \$ 2 <= 000a0000  
@000038d8: \$ 2 <= 00020000  
@000038e8: \$ 4 <= 00000000  
@000038ec: \$ 3 <= 00000000  
@000038f0: \$ 2 <= 00000001  
@000038f8: \$ 4 <= 00000001  
@000038fc: \$ 2 <= 00000001  
@00003900: \$ 1 <= 00000000  
@00003908: \$ 1 <= 00000001  
@00003910: \*00000000 <= 00000100  
@00003914: \$ 4 <= 000a0000  
@0000391c: \$ 3 <= 000d0000  
@00003924: \$ 4 <= 00020000  
@00003938: \$ 4 <= 00000000  
@00003948: \$ 4 <= 00000000  
@0000394c: \*00000000 <= 00000000  
@00003950: \*00000000 <= 00000000  
@00003954: \$ 1 <= 00000000  
@00003958: \$ 4 <= 00000000  
@00003960: \$ 1 <= 00000000  
@00003960: \$ 1 <= 00000000  
@00003964: \$ 3 <= 00000007  
@0000396c: \$ 2 <= 00000001  
@00003974: \$ 2 <= 00000000  
@0000397c: \$ 3 <= 00000001  
@00003980: \$ 2 <= 00000001  
@00003984: \$ 2 <= 00000000  
@00003988: \*00000000 <= 00000001  
@00003990: \$ 2 <= 00000000  
@00003990: \$ 2 <= 00000000  
@00003998: \$ 3 <= 00000002  
@0000399c: \$ 2 <= 00080000  
@000039a0: \$ 1 <= 00080000  
@000039b0: \$ 1 <= 00000000  
@000039b0: \$ 1 <= 00000000  
@000039b4: \$ 1 <= 00000001  
@000039c0: \$ 4 <= 00000000  
@000039c4: \$ 3 <= 00060000  
@000039cc: \$ 1 <= 00000000  
@000039d4: \*00000000 <= 00000000  
@000039d8: \$ 4 <= 00000001  
@000039e8: \$ 3 <= 00000001  
@000039ec: \$ 4 <= 00050000  
@000039fc: \$ 3 <= 00000000

@00003a04: \*00000000 <= 00000000  
@00003a0c: \$ 4 <= 00000000  
@00003a10: \$ 1 <= 00000000  
@00003a18: \$ 4 <= 0000000e  
@00003a34: \$ 2 <= 00000001  
@00003a3c: \*00000000 <= 00000100  
@00003a50: \$ 2 <= 00000001  
@00003a64: \$ 4 <= 00000000  
@00003a70: \$ 3 <= 000f0000  
@00003a78: \*00000000 <= 000f0000  
@00003a7c: \$ 4 <= 0000000c  
@00003a84: \$ 3 <= 000c0000  
@00003a88: \$ 2 <= 00060000  
@00003a8c: \*0000000c <= 0000000c  
@00003a94: \$ 4 <= 000c0000  
@00003aa4: \$ 4 <= 000f0000  
@00003aa8: \$ 1 <= 000b0000  
@00003aac: \$ 1 <= 00090000  
@00003ab0: \$ 1 <= 000d0000  
@00003ab4: \$ 2 <= 00060000  
@00003ab8: \$ 1 <= 00090000  
@00003abc: \$ 3 <= 00000000  
@00003ac4: \$ 3 <= 00000001  
@00003ad8: \$ 3 <= 00000000  
@00003ae0: \$ 4 <= 00060000  
@00003ae8: \$ 2 <= 00000000  
@00003af4: \$ 4 <= 00000003  
@00003af8: \*00000000 <= 000f0003  
@00003b04: \$ 3 <= 00000006  
@00003b10: \$ 3 <= 00000000  
@00003b14: \*00000000 <= 00000000  
@00003b18: \$ 2 <= 00000024  
@00003b1c: \$ 3 <= 00000000  
@00003b20: \*00000000 <= 00000000  
@00003b28: \*00000000 <= 00000000  
@00003b44: \$ 1 <= 0000000b  
@00003b48: \$ 1 <= 00010000  
@00003b54: \$ 4 <= 00010000  
@00003b74: \*00000000 <= 00000000  
@00003b78: \$ 4 <= 0000000d  
@00003b7c: \$ 2 <= 00000005  
@00003b84: \$ 3 <= 00000000  
@00003b90: \$ 4 <= 00000000  
@00003b90: \$ 4 <= 00000000

@00003b98: \$ 1 <= 00000000  
@00003b9c: \$ 2 <= 00000000  
@00003ba0: \$ 4 <= 00000000  
@00003ba4: \*00000000 <= 00000000  
@00003ba8: \$ 2 <= 00000000  
@00003bac: \$ 3 <= 00000000  
@00003bb0: \$ 2 <= 00000000  
@00003bb4: \$ 2 <= 00000000  
@00003bb8: \$ 3 <= 00000008  
@00003bbc: \*00000008 <= 00000000  
@00003bc0: \$ 4 <= 0000000d  
@00003bc4: \*0000000c <= 0000080c  
@00003bcc: \$ 1 <= 00000001  
@00003bd4: \$ 3 <= 00000001  
@00003be0: \$ 1 <= 00000000  
@00003be4: \$ 1 <= 00000000  
@00003be8: \*00000000 <= 00000000  
@00003bec: \$ 2 <= 00000001  
@00003bf4: \*00000000 <= 00000100  
@00003c08: \$ 3 <= 00000001  
@00003c10: \$ 2 <= 00000001  
@00003c14: \$ 4 <= 00090000  
@00003c24: \$ 4 <= 00000001  
@00003c28: \$ 2 <= 00070000  
@00003c2c: \$ 2 <= 00000000  
@00003c40: \$ 1 <= 00000000  
@00003c48: \$ 1 <= 00000000  
@00003c50: \*00000000 <= 00000100  
@00003c54: \*00000000 <= 00000000  
@00003c5c: \$ 4 <= 000b0000  
@00003c60: \$ 4 <= 000b000a  
@00003c78: \$ 1 <= 000b0010  
@00003c84: \$ 4 <= 00002c00  
@00003c88: \$ 2 <= 00580000  
@00003c98: \$ 4 <= 58000000  
@00003cac: \$ 4 <= 00070000  
@00003cb0: \$ 4 <= 00000000  
@00003cb4: \$ 1 <= 00000001  
@00003cbc: \$ 1 <= 00000000  
@00003cc0: \$ 4 <= 00030000  
@00003cd0: \$ 3 <= 00060000  
@00003cd0: \$ 3 <= 00060000  
@00003ce4: \$ 3 <= 000e0000  
@00003cf4: \$ 4 <= 00060000

@00003d00: \$ 2 <= 000000c0  
@00003d10: \$ 2 <= 00060000  
@00003d18: \$ 2 <= 00001800  
@00003d1c: \$ 3 <= fffffe7ff  
@00003d20: \$ 2 <= fffffe807  
@00003d24: \*00000000 <= fffffe7ff  
@00003d28: \$ 2 <= fe807000  
@00003d2c: \$ 3 <= 00080000  
@00003d40: \$ 3 <= 00060000  
@00003d44: \$ 1 <= 00000000  
@00003d60: \$ 3 <= 000a0000  
@00003d64: \$ 2 <= 00030000  
@00003d68: \$ 3 <= 00090000  
@00003d70: \$ 1 <= 00090001  
@00003d74: \$ 1 <= 00024000  
@00003d80: \$ 2 <= 00040000  
@00003d84: \$ 1 <= 00009000  
@00003d88: \$ 1 <= 00060000  
@00003d90: \$ 4 <= 00000001  
@00003d90: \$ 4 <= 00000001  
@00003d94: \$ 1 <= 00000000  
@00003d9c: \$ 1 <= 00000000  
@00003da0: \$ 1 <= 00000000  
@00003da8: \$ 4 <= ffffffff  
@00003dac: \*00000000 <= 00000000  
@00003db0: \*00000000 <= 000000ff  
@00003db8: \$ 4 <= 000d0000  
@00003dc0: \$ 3 <= 00000000  
@00003dc4: \$ 1 <= 00000000  
@00003dc8: \*00000000 <= 00000000  
@00003dcc: \$ 4 <= 000000a9  
@00003dd4: \$ 4 <= 000000b8  
@00003dd8: \$ 4 <= 00000000  
@00003de0: \$ 4 <= 00000000  
@00003de0: \$ 4 <= 00000000  
@00003de4: \$ 1 <= 000000a9  
@00003de8: \*00000000 <= 00000000  
@00003df4: \$ 3 <= 00000000  
@00003dfc: \$ 1 <= 00000000  
@00003e04: \$ 2 <= 0000000e  
@00003e10: \$ 2 <= 00050000  
@00003e1c: \$ 1 <= 00000000  
@00003e24: \$ 2 <= 00000000  
@00003e2c: \*00000000 <= 00000000

@00003e30: \$ 3 <= 00000000  
@00003e34: \*00000000 <= 00000000  
@00003e38: \$ 1 <= 00000000  
@00003e3c: \*00000000 <= 00000000  
@00003e40: \*00000000 <= 00000000  
@00003e44: \$ 2 <= 00000000  
@00003e50: \$ 3 <= 00000000  
@00003e50: \$ 3 <= 00000000  
@00003e54: \*00000000 <= 00000000  
@00003e58: \$ 2 <= 00000000  
@00003e64: \$ 1 <= 00000000  
@00003e70: \$ 1 <= 00000000  
@00003e7c: \$ 4 <= 0000000d  
@00003e88: \$ 1 <= 00080000  
@00003e8c: \*0000000c <= 00000d0c  
@00003ea0: \$ 3 <= 00000000  
@00003eb0: \*00000000 <= 00000000  
@00003ec0: \$ 3 <= 00080000  
@00003ec8: \$ 1 <= 00040000  
@00003ee4: \$ 2 <= 00000000  
@00003ee8: \$ 4 <= 00000000  
@00003ef0: \$ 4 <= 00000000  
@00003ef4: \$ 4 <= 00080000  
@00003f00: \$ 1 <= 00010000  
@00003f08: \$ 3 <= 00000001  
@00003f0c: \$ 1 <= fff7ffff  
@00003f20: \$ 2 <= 00000000  
@00003f28: \$ 3 <= 00080000  
@00003f2c: \$ 2 <= 000d0000  
@00003f30: \$ 4 <= 00000000  
@00003f38: \$ 1 <= 00060000  
@00003f48: \$ 4 <= 00000000  
@00003f4c: \$ 2 <= 00000000  
@00003f58: \$ 1 <= 00000000  
@00003f60: \$ 2 <= 00000000  
@00003f64: \$ 4 <= 00000006  
@00003f68: \$ 4 <= 00000000  
@00003f6c: \$ 1 <= 00040000  
@00003f70: \$ 1 <= 00050000  
@00003f7c: \$ 3 <= 00000000  
@00003f84: \$ 1 <= 00000001  
@00003f90: \$ 1 <= 0000000f  
@00003fa0: \$ 4 <= 0000001e  
@00003fa0: \$ 4 <= 0000001e

@00003fa8: \$ 3 <= 00000000  
@00003fb0: \$ 1 <= 00000000  
@00003fb4: \$ 4 <= 00000000  
@00003fb8: \$ 1 <= 00000000  
@00003fbc: \$ 4 <= 00000000  
@00003fc0: \$ 1 <= 000001c2  
@00003fc4: \$ 2 <= 00020000  
@00003fd4: \$ 2 <= 00020000  
@00003fd8: \$ 4 <= fffe0000  
@00003fdc: \$ 4 <= 00000000  
@00003fe0: \*00000000 <= 00000000  
@00003fe4: \$ 1 <= 000001c2  
@00003fe8: \*00000000 <= 00000000  
@00003ff4: \$ 2 <= 000001c8  
@00003ffc: \$ 1 <= 00090000  
@00004008: \*00000000 <= 00000000  
@00004014: \$ 2 <= 00000390  
@00004018: \$ 2 <= 00000001  
@0000401c: \$ 3 <= 00000000  
@00004020: \$ 1 <= ffffffff  
@00004024: \$ 4 <= 00000000  
@0000402c: \*00000000 <= ffffffff  
@00004030: \*00000000 <= ffffffff00  
@00004034: \*00000000 <= 00000000  
@00004038: \*00000000 <= 00000000  
@0000403c: \$ 4 <= 00000000  
@00004044: \$ 3 <= 00000000  
@00004048: \$ 1 <= 00000009  
@0000404c: \$ 3 <= 00000000  
@00004050: \$ 3 <= 00000000  
@00004054: \$ 3 <= 00000000  
@0000405c: \$ 4 <= 00080000  
@00004078: \$ 3 <= 00080000  
@00004084: \$ 3 <= 00080000  
@00004094: \$ 4 <= 00000000  
@000040a0: \$ 1 <= 00000000  
@000040a8: \$ 1 <= 00000001  
@000040ac: \$ 2 <= 00000000  
@000040b8: \$ 3 <= 00000000  
@000040c4: \$ 3 <= 00000000  
@000040d0: \$ 1 <= 00000000  
@000040d4: \$ 2 <= 00000000  
@000040d8: \$ 2 <= 00070000  
@000040e4: \$ 3 <= 00090000

@000040f0: \$ 1 <= 00000000  
@000040fc: \$ 4 <= 00000000  
@00004104: \$ 2 <= 0000000d  
@0000410c: \$ 4 <= 0000000f  
@00004114: \$ 2 <= 00000000  
@00004118: \*00000000 <= 0000000f  
@0000411c: \$ 2 <= 0000000f  
@00004120: \$ 3 <= 000b0000  
@0000412c: \$ 2 <= 00000000  
@00004130: \*00000000 <= 00000000  
@00004148: \$ 2 <= 000e0000  
@00004154: \$ 4 <= 00000000  
@00004160: \$ 1 <= 00000000  
@00004160: \$ 1 <= 00000000  
@00004164: \*00000000 <= 00000000  
@00004168: \$ 4 <= 000b0000  
@0000416c: \$ 2 <= 00000000  
@00004174: \$ 4 <= 00000000  
@00004178: \$ 4 <= 00000000  
@00004180: \*00000000 <= 00000000  
@00004184: \*00000000 <= 00000000  
@00004188: \*00000000 <= 00000000  
@0000418c: \*00000000 <= 00000000  
@00004190: \$ 2 <= 000a0000  
@00004194: \$ 1 <= 00050000  
@000041ac: \$ 4 <= 00000000  
@000041b0: \$ 4 <= 00000000  
@000041b4: \$ 3 <= 00030000  
@000041bc: \$ 1 <= 00000000  
@000041c4: \*00000000 <= 00000000  
@000041cc: \$ 4 <= 00040000  
@000041d0: \$ 1 <= 00090000  
@000041e0: \$ 2 <= 00000000  
@000041f0: \$ 2 <= 00000020  
@000041f4: \$ 2 <= 00000000  
@000041f8: \$ 1 <= 00000000  
@000041fc: \$ 1 <= 00040000  
@00004200: \$ 3 <= 00000000  
@00004214: \$ 3 <= 00000001  
@0000421c: \$ 2 <= 00000000  
@00004220: \$ 4 <= 00000000  
@00004228: \$ 2 <= 00000000  
@00004230: \$ 3 <= 00000000  
@00004234: \$ 4 <= 00000000

@00004244: \$ 3 <= 000a0000  
@00004248: \$ 1 <= 00000000  
@00004258: \$ 1 <= 00000000  
@00004260: \$ 4 <= 00000000  
@00004264: \$ 4 <= 00000000  
@00004270: \$ 2 <= 00000000  
@00004278: \*00000000 <= 00000000  
@00004280: \$ 3 <= 00000000  
@00004280: \$ 3 <= 00000000  
@00004284: \*00000000 <= 00000000  
@00004288: \$ 2 <= 00000000  
@00004290: \$ 2 <= 0000000e  
@00004298: \$ 2 <= ffffffff1  
@000042a0: \*00000000 <= ffffffff1  
@000042a4: \*00000000 <= ffffffff1  
@000042ac: \$ 1 <= 00060000  
@000042b0: \$ 4 <= 00000000  
@000042b8: \$ 4 <= 00000000  
@000042bc: \$ 2 <= ffffffff1  
@000042c0: \$ 4 <= ffffffff9  
@000042c4: \$ 2 <= 0000fff1  
@000042c8: \$ 1 <= 00000001  
@000042cc: \$ 2 <= 00000000  
@000042d4: \$ 2 <= 00000000  
@000042dc: \$ 1 <= ffffffff1  
@000042e0: \$ 4 <= 00050000  
@000042e8: \$ 1 <= 00020000  
@000042f0: \$ 2 <= 00000000  
@000042f4: \$ 4 <= 00020000  
@000042fc: \$ 1 <= 20000000  
@00004300: \$ 3 <= 0000000a  
@00004314: \$ 4 <= 00000000  
@00004318: \$ 2 <= 00090000  
@00004328: \$ 1 <= 0000000a  
@00004330: \$ 2 <= 00000000  
@00004334: \*00000000 <= fffffff0a  
@0000433c: \*00000000 <= 00000000  
@00004340: \$ 4 <= 00000000  
@00004344: \$ 2 <= 00000000  
@00004348: \$ 2 <= 00000000  
@0000434c: \*00000000 <= 00000000  
@00004350: \$ 3 <= ffffffff  
@0000435c: \$ 4 <= 000f0000  
@0000436c: \$ 1 <= 00000000



@00004370: \$ 4 <= 00000006  
@00004374: \$ 1 <= 00000000  
@0000437c: \$ 3 <= 00000000  
@00004388: \$ 1 <= 00080000  
@0000438c: \$ 2 <= 00040000  
@00004390: \$ 2 <= 00000000  
@00004394: \$ 3 <= 00000000  
@0000439c: \*00000000 <= 00000000  
@000043a0: \$ 4 <= 00070000  
@000043a4: \$ 1 <= 00000000  
@000043ac: \$ 3 <= 00000000  
@000043b0: \*00000000 <= 00000000  
@000043b4: \*00000000 <= 00000000  
@000043b8: \$ 4 <= 00000000  
@000043bc: \$ 2 <= 00000008  
@000043c4: \*00000008 <= 00000008  
@000043c8: \$ 1 <= 00000008  
@000043cc: \$ 3 <= 00000013  
@000043d8: \*00000010 <= 13000004  
@000043e0: \$ 2 <= 000c0000  
@000043e4: \$ 2 <= 000c0013  
@000043fc: \$ 3 <= 00000000  
@00004400: \$ 1 <= 00000000  
@00004408: \$ 2 <= 00000000  
@0000440c: \$ 3 <= 000a0000  
@00004414: \$ 3 <= fff5ffff  
@00004428: \$ 2 <= 00000000  
@00004430: \$ 1 <= 00000000  
@00004440: \$ 1 <= 00000000  
@00004444: \$ 3 <= 00000000  
@0000444c: \$ 1 <= 00000001  
@00004450: \$ 2 <= 00080000  
@00004454: \$ 3 <= 00000000  
@00004458: \$ 3 <= 00070000  
@00004460: \$ 1 <= 00040000  
@00004464: \$ 2 <= 00070000  
@00004470: \$ 3 <= 00070008  
@00004478: \$ 4 <= 00070003  
@00004480: \$ 1 <= 00000000  
@00004484: \$ 3 <= 00000000  
@00004488: \$ 4 <= 00080000  
@0000448c: \$ 1 <= 00000000  
@0000449c: \*00000000 <= 00000000  
@000044a0: \$ 3 <= 00020000

@000044a4: \$ 1 <= 00000000  
@000044a8: \$ 4 <= 00000000  
@000044ac: \$ 2 <= 00000000  
@000044b0: \$ 3 <= 00000000  
@000044b4: \$ 2 <= 000c0000  
@000044b8: \$ 3 <= 000c0004  
@000044bc: \$ 3 <= 000c0000  
@000044cc: \$ 2 <= 00000000  
@000044d4: \$ 2 <= 00000000  
@000044e0: \$ 2 <= 00000000  
@000044e4: \$ 3 <= 00000001  
@000044e8: \$ 2 <= 000e0000  
@000044ec: \$ 1 <= 00000000  
@000044f0: \$ 2 <= 00000000  
@000044f8: \*00000000 <= 00000000  
@000044fc: \$ 3 <= 00000000  
@00004500: \$ 3 <= 0000000b  
@00004508: \$ 1 <= 000d0000  
@00004518: \$ 1 <= 00000000  
@00004528: \$ 3 <= 00000001  
@0000452c: \$ 2 <= 00000001  
@00004530: \$ 1 <= 00000000  
@00004534: \$ 1 <= 000d0000  
@00004538: \$ 2 <= 000d0000  
@0000454c: \$ 4 <= 000d0000  
@00004554: \$ 1 <= 00090000  
@00004564: \$ 3 <= 000b0000  
@0000456c: \$ 3 <= 00090000  
@00004594: \$ 4 <= 0009000e  
@000045b0: \$ 4 <= 001a0000  
@000045c0: \$ 1 <= 001a0004  
@000045c0: \$ 1 <= 001a0004  
@000045cc: \$ 2 <= 001a0004  
@000045e0: \$ 3 <= 00000000  
@000045e8: \$ 4 <= 00000000  
@000045f0: \$ 3 <= 00000000  
@000045f4: \$ 4 <= 00020000  
@000045fc: \$ 4 <= 00000000  
@00004604: \$ 1 <= 00000000  
@00004620: \$ 1 <= 00000000  
@00004624: \*00000000 <= 00000000  
@00004628: \$ 3 <= 00000001  
@00004630: \$ 4 <= 00000000  
@00004634: \$ 4 <= 00000000

@0000463c: \*00000000 <= 00000100  
@00004640: \$ 1 <= 00090000  
@00004644: \$ 4 <= fff70000  
@00004660: \$ 2 <= fff70000  
@00004660: \$ 2 <= fff70000  
@0000467c: \$ 2 <= 00000200  
@00004684: \$ 3 <= 00000100  
@0000468c: \*00000000 <= 00000200  
@000046bc: \$ 2 <= 00000001  
@000046cc: \$ 2 <= 00000001  
@000046d0: \$ 2 <= 000d0000  
@000046d4: \$ 3 <= 000d0009  
@000046d8: \$ 4 <= 000e0000  
@000046dc: \$ 2 <= 000e0000  
@000046e0: \$ 3 <= 00000e00  
@000046e4: \$ 2 <= 00007000  
@000046ec: \$ 3 <= 00000000  
@000046f0: \$ 1 <= 00000000  
@000046f4: \$ 4 <= 00000000  
@000046fc: \$ 2 <= 00000000  
@00004704: \$ 4 <= 00000000  
@00004708: \$ 2 <= 00000000  
@0000470c: \$ 3 <= 00060000  
@0000471c: \$ 2 <= 0006000c  
@00004720: \$ 4 <= 00001800  
@00004734: \$ 3 <= 00001800  
@00004748: \$ 1 <= 00003000  
@00004754: \$ 1 <= 00000000  
@0000475c: \$ 3 <= 00000000  
@00004760: \$ 3 <= 00000000  
@00004768: \$ 4 <= 00000000  
@0000476c: \*00000000 <= 00000000  
@00004770: \$ 1 <= 0000000a  
@00004774: \$ 4 <= 00000000  
@00004778: \$ 1 <= 00000000  
@00004780: \$ 3 <= 00000000  
@00004784: \*00000000 <= 00000000  
@00004788: \$ 3 <= 00000000  
@0000478c: \$ 4 <= 00000000  
@00004790: \$ 1 <= 00070000  
@00004798: \$ 1 <= 00000000  
@000047a0: \$ 1 <= 00000000  
@000047a4: \$ 1 <= 00000000  
@000047a8: \$ 3 <= 00000000

@000047b0: \$ 3 <= 00000000  
@000047b4: \$ 1 <= 00000000  
@000047bc: \$ 1 <= 00000000  
@000047c0: \$ 2 <= 00000000  
@000047c4: \$ 2 <= 00000000  
@000047c8: \$ 1 <= 00000000  
@000047d0: \*00000000 <= 00000000  
@000047d4: \$ 3 <= 00000000  
@000047dc: \$ 3 <= 00000000  
@000047e0: \*00000000 <= 00000000  
@000047e8: \$ 3 <= 00000000  
@000047ec: \$ 2 <= 00000000  
@000047f0: \*00000000 <= 00000000  
@000047f4: \*00000000 <= 00000000  
@000047f8: \*00000000 <= 00000000  
@00004800: \*00000000 <= 00000000  
@00004804: \*00000000 <= 00000000  
@00004808: \$ 1 <= 00000000  
@0000480c: \$ 1 <= 00000000  
@00004810: \$ 2 <= 00000000  
@00004818: \$ 1 <= 000b0000  
@0000481c: \$ 3 <= 00060000  
@00004824: \$ 4 <= 000c0000  
@0000482c: \$ 2 <= 000b0000  
@00004830: \$ 4 <= 00000000  
@00004838: \$ 2 <= 00000000  
@00004840: \$ 1 <= 00000000  
@00004844: \$ 2 <= 00000000  
@00004850: \$ 3 <= 00000001  
@00004850: \$ 3 <= 00000001  
@00004858: \$ 3 <= 00000000  
@00004860: \$ 4 <= 00000001  
@00004864: \$ 4 <= 00000000  
@0000486c: \$ 2 <= 00000000  
@00004874: \$ 2 <= 00000005  
@00004878: \$ 1 <= 00000005  
@00004888: \$ 1 <= 00070000  
@00004890: \$ 3 <= 00000000  
@00004894: \$ 4 <= 00070000  
@000048a4: \$ 2 <= 00000000  
@000048a8: \$ 1 <= 000f0000  
@000048b4: \$ 3 <= 00000000  
@000048c8: \$ 2 <= 00000000  
@000048d0: \$ 4 <= 000d0000

@000048d0: \$ 4 <= 000d0000  
@000048d4: \$ 4 <= 00000000  
@000048d8: \$ 3 <= 00000000  
@000048dc: \$ 3 <= 00000000  
@000048e0: \$ 2 <= 00000000  
@000048e4: \$ 4 <= 00000000  
@000048ec: \$ 3 <= 00070000  
@000048fc: \$ 2 <= 0007000e  
@00004900: \$ 2 <= 000a0000  
@0000490c: \$ 4 <= 00090000  
@00004914: \$ 2 <= 000f0000  
@00004918: \$ 3 <= 000c0000  
@0000491c: \$ 4 <= 00090000  
@00004924: \$ 2 <= 00090003  
@00004930: \$ 2 <= 00000000  
@00004934: \$ 3 <= 00000000  
@00004938: \$ 1 <= 00000002  
@0000493c: \$ 1 <= 00000000  
@00004950: \$ 1 <= 00000000  
@00004958: \$ 2 <= 00000000  
@00004960: \$ 3 <= 00000000  
@00004964: \*00000000 <= 00000000  
@00004968: \$ 1 <= 00000000  
@0000496c: \$ 1 <= 00060000  
@00004974: \$ 2 <= 00000000  
@00004978: \$ 1 <= 00000000  
@00004988: \$ 4 <= 00030000  
@0000498c: \$ 3 <= 00000000  
@00004990: \*00000000 <= 00000000  
@00004994: \$ 4 <= 00000000  
@00004998: \$ 2 <= 00000000  
@0000499c: \$ 1 <= 00000000  
@000049a4: \*00000000 <= 00000000  
@000049b0: \$ 4 <= 000a0000  
@000049b8: \$ 2 <= 00000000  
@000049bc: \$ 3 <= 0000000f  
@000049c0: \*0000000c <= 0f000d0c  
@000049c4: \$ 2 <= 00000000  
@000049c8: \$ 3 <= 00000000  
@000049cc: \*00000000 <= 00000000  
@000049d0: \$ 4 <= 0000000c  
@000049d8: \$ 1 <= 000d0000  
@000049f0: \$ 4 <= 00000000  
@000049f4: \$ 3 <= 00000000

@000049f8: \$ 4 <= 00000000  
@000049fc: \$ 3 <= 00000000  
@00004a00: \$ 3 <= 00000000  
@00004a04: \$ 4 <= 00020000  
@00004a0c: \$ 4 <= fffe0000  
@00004a14: \$ 4 <= fffff800  
@00004a18: \*00000000 <= 00000000  
@00004a1c: \$ 3 <= 00030000  
@00004a24: \$ 2 <= 00020000  
@00004a28: \*00000000 <= 0000f800  
@00004a38: \$ 2 <= 00000000  
@00004a44: \$ 1 <= 00000000  
@00004a4c: \$ 2 <= 00000000  
@00004a50: \$ 2 <= 000e0000  
@00004a54: \$ 3 <= fffc0004  
@00004a5c: \$ 2 <= 0011fffc  
@00004a64: \$ 4 <= 00000000  
@00004a68: \*00000000 <= 0000f8fc  
@00004a70: \$ 3 <= 00000007  
@00004a78: \*00000004 <= 0700000b  
@00004a84: \$ 2 <= 00000007  
@00004a88: \$ 1 <= 00000007  
@00004a8c: \$ 4 <= 00000007  
@00004a90: \$ 2 <= 000e0000  
@00004a94: \$ 3 <= 00000007  
@00004a9c: \$ 3 <= 00010000  
@00004ab0: \$ 2 <= 00000001  
@00004ab8: \$ 4 <= 00000000  
@00004abc: \$ 3 <= 000a0000  
@00004ac4: \$ 2 <= 00000000  
@00004ac8: \$ 2 <= 00000000  
@00004acc: \$ 1 <= 00000001  
@00004ad4: \$ 4 <= 000c0000  
@00004ae4: \$ 3 <= 000c0000  
@00004af4: \$ 1 <= 000a0000  
@00004b00: \$ 1 <= 00000001  
@00004b04: \$ 1 <= 000d0000  
@00004b0c: \$ 2 <= 00000007  
@00004b10: \$ 2 <= 00000007  
@00004b14: \$ 3 <= 00000001  
@00004b18: \$ 3 <= 00000007  
@00004b24: \$ 4 <= 00000007  
@00004b2c: \$ 1 <= 00000000  
@00004b30: \$ 1 <= ffffffff

@00004b34: \$ 2 <= 000f8fc  
@00004b3c: \$ 4 <= 00030000  
@00004b40: \$ 3 <= 00030000  
@00004b4c: \$ 3 <= 00006000  
@00004b54: \$ 1 <= ffffffff  
@00004b64: \$ 2 <= ffffffff  
@00004b68: \$ 1 <= 00000002  
@00004b6c: \$ 3 <= ffffffff  
@00004b74: \$ 3 <= ffffffff  
@00004b78: \$ 1 <= 00000003  
@00004b7c: \*00000000 <= ffffffff  
@00004b80: \$ 1 <= 00000012  
@00004b90: \$ 3 <= 00000000  
@00004b90: \$ 3 <= 00000000  
@00004b94: \$ 2 <= 000000fc  
@00004b9c: \*00000000 <= ffffff00  
@00004ba0: \*00000000 <= ffffffff  
@00004ba4: \$ 1 <= 00060000  
@00004ba8: \$ 4 <= 00000000  
@00004bb0: \$ 3 <= 00000000  
@00004bbc: \$ 1 <= ffffffff  
@00004bc4: \$ 3 <= 000f0000  
@00004bc8: \$ 3 <= 00010000  
@00004bcc: \$ 2 <= 00080000  
@00004bd4: \$ 1 <= 00000000  
@00004bd8: \$ 1 <= 000a0000  
@00004bec: \$ 3 <= 00000064  
@00004bf0: \$ 1 <= 00070000  
@00004bf8: \$ 3 <= 0007000b  
@00004bfc: \$ 3 <= 0001c002  
@00004c00: \$ 3 <= 00000000  
@00004c04: \$ 2 <= ffffffff  
@00004c08: \$ 3 <= 000000fc  
@00004c0c: \$ 1 <= ffffffff  
@00004c24: \*00000000 <= ffffffff  
@00004c2c: \*00000000 <= ffffffff  
@00004c30: \$ 4 <= 00070000  
@00004c34: \$ 1 <= ffffffff  
@00004c38: \$ 3 <= 00000001  
@00004c48: \$ 2 <= 00000001  
@00004c4c: \$ 3 <= 00080000  
@00004c54: \$ 1 <= 00000000  
@00004c58: \$ 1 <= 00000001  
@00004c60: \$ 3 <= 000d0000

@00004c60: \$ 3 <= 000d0000  
@00004c64: \$ 2 <= 0000d000  
@00004c7c: \$ 4 <= 03400000  
@00004c94: \$ 4 <= 000d0000  
@00004c98: \$ 2 <= 00050000  
@00004c9c: \$ 1 <= 000a0000  
@00004ca8: \$ 1 <= 00080000  
@00004cb8: \$ 1 <= fff7ffff  
@00004cbc: \$ 2 <= 00000000  
@00004cc4: \$ 2 <= 00000000  
@00004cc8: \$ 4 <= 000000fc  
@00004cd4: \*00000000 <= ffff00fc  
@00004cd8: \$ 3 <= 000000fc  
@00004cdc: \$ 4 <= 00000001  
@00004ce0: \$ 1 <= 000e0000  
@00004ce4: \$ 2 <= 00080000  
@00004cf0: \$ 2 <= 00000000  
@00004cf4: \*00000000 <= ffff0000  
@00004cfc: \$ 4 <= 00070000  
@00004d18: \$ 4 <= 00000000  
@00004d1c: \$ 3 <= 000a0000  
@00004d3c: \$ 4 <= 00000001  
@00004d40: \$ 1 <= 00000000  
@00004d48: \$ 2 <= 00090000  
@00004d4c: \$ 3 <= 00060000  
@00004d54: \$ 3 <= 00060000  
@00004d5c: \$ 1 <= fff9ffff  
@00004d70: \$ 3 <= 00000000  
@00004d74: \$ 2 <= 00000000  
@00004d7c: \*00000000 <= ffff0000  
@00004d80: \$ 4 <= 00000000  
@00004d88: \$ 2 <= 00000000  
@00004d8c: \$ 4 <= 00000000  
@00004d90: \$ 1 <= 00030000  
@00004db0: \$ 1 <= 00000000  
@00004dc0: \$ 1 <= ffffffff  
@00004dc4: \$ 2 <= 000d0000  
@00004dcc: \$ 3 <= 000d0000  
@00004dd8: \$ 2 <= 000d0007  
@00004de4: \$ 3 <= 00000000  
@00004dec: \$ 1 <= 000d0000  
@00004df0: \$ 4 <= 00070000  
@00004df4: \$ 1 <= 00000000  
@00004e00: \$ 1 <= 00000000



@00004e00: \$ 1 <= 00000000  
@00004e04: \*00000000 <= 00000000  
@00004e08: \$ 1 <= 000f0000  
@00004e14: \$ 1 <= 00000000  
@00004e18: \$ 3 <= 000d0000  
@00004e20: \$ 3 <= 00000000  
@00004e20: \$ 3 <= 00000000  
@00004e2c: \$ 1 <= 00000003  
@00004e34: \$ 2 <= 00000003  
@00004e40: \$ 2 <= 00000003  
@00004e44: \$ 4 <= 00000000  
@00004e48: \*00000000 <= 00000003  
@00004e54: \$ 1 <= 00000000  
@00004e5c: \$ 4 <= 00000000  
@00004e60: \$ 4 <= 00000000  
@00004e6c: \$ 4 <= 00000003  
@00004e70: \$ 3 <= 00060000  
@00004e78: \$ 3 <= 00000000  
@00004e7c: \$ 1 <= 00000003  
@00004e80: \$ 3 <= 00000000  
@00004e88: \$ 2 <= 00000001  
@00004e8c: \$ 3 <= 00000003  
@00004e9c: \$ 2 <= 00030000  
@00004ea8: \$ 4 <= 00030000  
@00004eb0: \$ 2 <= 00000003  
@00004ebc: \$ 4 <= 00000000  
@00004ec4: \$ 3 <= 00000000  
@00004ec8: \*00000000 <= 00000000  
@00004ed0: \$ 1 <= 00000000  
@00004ed0: \$ 1 <= 00000000  
@00004ed8: \$ 2 <= 00050000  
@00004ee0: \$ 1 <= 00090000  
@00004ee0: \$ 1 <= 00090000  
@00004ee4: \$ 2 <= 00000000  
@00004ee8: \$ 2 <= 00000000  
@00004eec: \$ 2 <= 00000000  
@00004ef0: \$ 1 <= 00020000  
@00004f08: \$ 2 <= 00000000  
@00004f0c: \$ 1 <= 00000000  
@00004f10: \$ 4 <= 00000000  
@00004f14: \$ 2 <= 00020000  
@00004f28: \$ 3 <= 00000000  
@00004f2c: \$ 1 <= 00000000  
@00004f30: \$ 4 <= 00000000

@00004f44: \$ 4 <= 00000000  
@00004f54: \$ 4 <= 00070000  
@00004f64: \$ 1 <= 00000000  
@00004f78: \$ 3 <= 00000000  
@00004f8c: \$ 4 <= 00010000  
@00004f94: \$ 3 <= 00070000  
@00004f98: \$ 1 <= 00080000  
@00004f9c: \$ 3 <= 00000000  
@00004fa4: \$ 2 <= 000f0000  
@00004fb0: \$ 1 <= 00000000  
@00004fb4: \$ 1 <= 00000000  
@00004fbc: \*00000000 <= 00000000  
@00004fc0: \$ 2 <= 00000000  
@00004fc8: \$ 1 <= 000f0000  
@00004fd0: \$ 3 <= 00000000  
@00004fd8: \$ 1 <= 000e0000  
@00004fe8: \$ 2 <= 000000e0  
@00004fec: \$ 3 <= 000000c4  
@00004ff4: \$ 2 <= 00010000  
@00005008: \$ 2 <= 00020000  
@0000500c: \$ 3 <= 00010000  
@00005014: \$ 3 <= 000b0000  
@00005024: \$ 1 <= 00010000  
@00005040: \$ 4 <= 00020000  
@00005044: \$ 2 <= 00000001  
@0000504c: \$ 1 <= 00010000  
@00005054: \$ 1 <= 00010000  
@0000505c: \$ 3 <= 00040000  
@00005060: \$ 1 <= 00040000  
@00005064: \$ 1 <= 00000001  
@00005074: \$ 4 <= 00000000  
@00005078: \$ 2 <= 00000000  
@00005080: \$ 3 <= 00000000  
@00005088: \$ 4 <= 00060000  
@00005094: \$ 2 <= 00000000  
@00005098: \$ 3 <= 00000000  
@000050a0: \$ 4 <= 00000000  
@000050a4: \$ 4 <= 00000000  
@000050ac: \$ 1 <= 00000000  
@000050b8: \*00000000 <= 00000000  
@000050bc: \$ 1 <= 00000000  
@000050c4: \$ 1 <= 00000001  
@000050c8: \$ 4 <= 00000000  
@000050cc: \*00000000 <= 00000100

@000050d4: \*00000000 <= 00000000  
@000050e4: \$ 4 <= 00000001  
@00005104: \$ 2 <= 00000000  
@0000510c: \$ 3 <= 00000000  
@00005114: \$ 2 <= 00010000  
@00005118: \$ 1 <= 00000000  
@00005120: \$ 1 <= 000b0000  
@00005120: \$ 1 <= 000b0000  
@00005124: \$ 3 <= 00060000  
@00005128: \$ 2 <= 00000000  
@0000512c: \$ 2 <= 00000000  
@00005130: \$ 4 <= ffffffff  
@00005140: \$ 3 <= ffffffff  
@00005144: \$ 3 <= 001fffff  
@00005148: \$ 2 <= 00000000  
@0000514c: \$ 2 <= 0000ffff  
@00005154: \$ 1 <= 00040000  
@0000515c: \$ 4 <= 00040000  
@00005164: \$ 1 <= 00000001  
@0000516c: \$ 1 <= 00000000  
@00005170: \$ 3 <= 00000000  
@00005174: \$ 1 <= 00000000  
@00005180: \*00000000 <= 00000000  
@00005190: \$ 3 <= 00000000  
@00005198: \$ 2 <= 00000000  
@0000519c: \*00000000 <= 00000000  
@000051a0: \$ 2 <= 00000000  
@000051ac: \*00000000 <= 00000000  
@000051b0: \$ 1 <= 00000000  
@000051b4: \$ 2 <= 00000000  
@000051b8: \$ 3 <= 00000001  
@000051c0: \$ 1 <= 00000000  
@000051c8: \$ 4 <= 000b0000  
@000051e0: \$ 1 <= 00080000  
@000051e0: \$ 1 <= 00080000  
@000051e4: \$ 2 <= 00000001  
@000051ec: \$ 3 <= 00000000  
@000051f0: \*00000000 <= 00000000  
@000051f4: \$ 2 <= 00000009  
@0000520c: \$ 3 <= 00000000  
@00005220: \$ 3 <= 00000000  
@00005224: \$ 1 <= 00000000  
@0000522c: \$ 3 <= 00000000  
@00005230: \$ 4 <= 00000000

@00005234: \$ 1 <= 00000000  
@00005240: \$ 2 <= 00000000  
@00005248: \*00000000 <= 00000000  
@0000524c: \$ 1 <= 00000000  
@00005250: \$ 3 <= 00000000  
@00005254: \*00000000 <= 00000000  
@00005258: \$ 2 <= 00000000  
@0000525c: \$ 4 <= 000a0000  
@00005260: \$ 2 <= 000a0000  
@00005268: \$ 2 <= 000a0000  
@00005270: \$ 2 <= 00005000  
@00005274: \$ 1 <= 00000000  
@00005288: \$ 2 <= 00000000  
@00005290: \$ 4 <= 00040000  
@00005298: \$ 3 <= 000f0000  
@000052a0: \$ 4 <= 00000000  
@000052a4: \*00000000 <= 00000000  
@000052a8: \$ 2 <= 00000000  
@000052ac: \$ 1 <= 00000000  
@000052b0: \$ 3 <= 00000000  
@000052b8: \$ 3 <= 00000000  
@000052c0: \$ 3 <= ffffffff  
@000052c4: \$ 1 <= 00000006  
@000052cc: \*00000004 <= ffff000b  
@000052d0: \$ 2 <= 000d0000  
@000052d8: \$ 1 <= 00000000  
@000052e0: \$ 1 <= 000e0000  
@000052ec: \*00000000 <= 000e0000  
@000052f0: \$ 3 <= 00080000  
@000052f8: \$ 2 <= 00080009  
@00005300: \$ 4 <= 00000400  
@00005304: \$ 2 <= 00080009  
@00005314: \$ 4 <= 00000040  
@00005320: \$ 2 <= 00002000  
@00005324: \*00000040 <= 00002000  
@00005328: \$ 3 <= 00040000  
@00005334: \$ 4 <= 00000200  
@0000533c: \$ 3 <= 00030000  
@00005350: \$ 2 <= 00000000  
@00005354: \$ 2 <= 00000000  
@00005364: \$ 1 <= 00000000  
@00005368: \$ 1 <= 00000000  
@0000536c: \$ 2 <= 00070000  
@00005370: \$ 1 <= 38000000

@00005374: \$ 3 <= 00030000  
@00005378: \$ 4 <= 00070000  
@00005380: \$ 4 <= 00080000  
@0000538c: \$ 4 <= 0008000c  
@00005394: \$ 3 <= 0008000c  
@0000539c: \$ 1 <= 8000c000  
@000053b8: \$ 4 <= 8000c000  
@000053c0: \$ 4 <= 3fff4000  
@000053c0: \$ 4 <= 3fff4000  
@000053c4: \$ 3 <= 3fff4000  
@000053c8: \$ 2 <= 90000000  
@000053cc: \$ 4 <= 000a0000  
@000053d8: \$ 3 <= 00000000  
@000053dc: \$ 3 <= 00000000  
@000053e0: \$ 4 <= 00000000  
@000053f0: \$ 2 <= 00040000  
@000053f8: \*00000000 <= 00040000  
@000053fc: \$ 2 <= 00000000  
@00005400: \$ 4 <= 00030000  
@00005404: \$ 3 <= 0000000e  
@0000540c: \$ 2 <= 00000000  
@00005410: \$ 2 <= 00000007  
@00005414: \*00000004 <= 07ff000b  
@00005418: \$ 4 <= 00000001  
@00005420: \$ 2 <= 00000000  
@00005424: \$ 2 <= 00030000  
@00005428: \$ 4 <= 00000002  
@00005430: \$ 4 <= 00080000  
@00005434: \$ 4 <= 00000000  
@0000543c: \$ 2 <= 00000000  
@0000544c: \$ 1 <= 00000000  
@00005454: \$ 4 <= 00040000  
@00005458: \$ 3 <= 00000000  
@00005460: \$ 2 <= 00000000  
@00005468: \$ 2 <= 00000000  
@00005470: \*00000000 <= 00000000  
@00005478: \$ 2 <= 00000000  
@00005480: \$ 2 <= 000d0000  
@00005484: \$ 3 <= 00000000  
@00005488: \$ 4 <= 000d0001  
@00005494: \$ 3 <= 00000001  
@00005498: \$ 1 <= 00060000  
@0000549c: \$ 1 <= 00060000  
@000054a0: \$ 1 <= 000d0001

@000054ac: \$ 3 <= 001a0001  
@000054b0: \$ 1 <= 000000a9  
@000054b4: \$ 2 <= 00000000  
@000054b8: \*00000000 <= 001a0001  
@000054c4: \$ 1 <= 00060000  
@000054d4: \$ 1 <= 00060000  
@000054dc: \$ 3 <= 00000000  
@000054ec: \*00000000 <= 001a0000  
@000054f8: \*00000000 <= 00000000  
@00005504: \$ 3 <= 00000000  
@00005510: \$ 3 <= 00030000  
@00005514: \$ 4 <= 000a0000  
@00005524: \$ 3 <= 00100000  
@00005528: \$ 4 <= 000a0000  
@00005530: \$ 3 <= 00000000  
@00005534: \$ 2 <= 00000000  
@00005538: \$ 1 <= 00000003  
@0000553c: \$ 4 <= 000e0000  
@00005544: \$ 4 <= 00000000  
@00005548: \$ 4 <= 00000001  
@0000554c: \*00000000 <= 00000100  
@00005554: \$ 1 <= 00000000  
@0000555c: \*00000000 <= 00000000  
@00005564: \*00000000 <= 00000000  
@00005570: \$ 2 <= 00000009  
@00005574: \$ 2 <= 00000000  
@00005578: \$ 3 <= 00000000  
@00005580: \*00000000 <= 00000000  
@00005580: \*00000000 <= 00000000  
@00005588: \$ 2 <= 00000000  
@0000558c: \$ 2 <= 00000000  
@00005590: \$ 3 <= 00000000  
@00005594: \$ 1 <= 00000000  
@00005598: \$ 2 <= 00000000  
@0000559c: \$ 1 <= 00000000  
@000055a0: \$ 1 <= 00000000  
@000055b0: \$ 3 <= 00020000  
@000055bc: \$ 1 <= 40000000  
@000055c0: \$ 4 <= 00000000  
@000055c4: \$ 3 <= 00000008  
@000055c8: \$ 3 <= 00000000  
@000055cc: \$ 1 <= 00000000  
@000055d0: \$ 3 <= 00000000  
@000055d8: \*00000000 <= 00000000

@000055e0: \*00000000 <= 00000000  
@000055e8: \$ 1 <= 00000000  
@000055ec: \$ 1 <= 00050000  
@000055f0: \$ 2 <= 00010000  
@000055f4: \$ 1 <= 00000000  
@000055f8: \*00000000 <= 00000000  
@000055fc: \$ 2 <= 00000000  
@00005608: \$ 4 <= 00010000  
@0000560c: \$ 2 <= 000f0000  
@00005610: \$ 3 <= 00000000  
@0000561c: \$ 4 <= 00090000  
@00005624: \$ 1 <= 00000000  
@00005628: \$ 3 <= 00000000  
@0000562c: \$ 1 <= 0000000f  
@00005640: \$ 1 <= 000d0000  
@0000564c: \$ 2 <= 00090000  
@00005654: \$ 2 <= 000a0000  
@00005658: \$ 4 <= 00080000  
@0000565c: \$ 1 <= 00000000  
@00005660: \$ 3 <= 00000000  
@00005664: \*00000000 <= 00000000  
@0000566c: \$ 4 <= 00000000  
@00005670: \$ 3 <= 00000051  
@00005674: \*00000050 <= 0000510b  
@00005678: \$ 2 <= 00000051  
@00005680: \$ 4 <= 000f0000  
@00005680: \$ 4 <= 000f0000  
@00005684: \$ 3 <= 00080000  
@00005698: \$ 3 <= 00020000  
@000056a0: \$ 3 <= 00020000  
@000056a8: \$ 3 <= fffdffff  
@000056b4: \$ 1 <= 00050000  
@000056c0: \$ 4 <= 00050000  
@000056c8: \$ 4 <= 00000000  
@000056cc: \$ 3 <= 0005000a  
@000056e0: \$ 4 <= 00000000  
@000056e4: \$ 4 <= 00000001  
@000056f0: \*00000000 <= 00000100  
@000056f8: \$ 3 <= 0000000d  
@00005700: \$ 1 <= 0000000d  
@00005704: \$ 3 <= 00000000  
@00005714: \*00000000 <= 00000000  
@0000571c: \$ 1 <= 00000000  
@00005720: \$ 4 <= 00000000

@00005724: \$ 4 <= 00000000  
@0000572c: \$ 1 <= 00000000  
@00005730: \$ 1 <= 00000000  
@00005738: \$ 4 <= 00000002  
@00005740: \$ 1 <= 00000000  
@00005744: \$ 1 <= 00000000  
@00005748: \$ 3 <= 00000000  
@0000574c: \*00000000 <= 00000000  
@00005754: \*00000000 <= 00000000  
@00005758: \$ 1 <= 00000000  
@0000575c: \$ 2 <= 000d0000  
@0000576c: \$ 1 <= 00000000  
@00005774: \$ 4 <= 00000007  
@00005788: \*00000000 <= 00000000  
@0000578c: \*00000000 <= 00000000  
@00005794: \$ 4 <= 00000000  
@00005798: \$ 2 <= 00020000  
@000057a0: \$ 4 <= 00040000  
@000057a0: \$ 4 <= 00040000  
@000057a4: \$ 3 <= 0004000b  
@000057b0: \$ 4 <= 00020002  
@000057b4: \$ 4 <= 00000000  
@000057b8: \*00000000 <= 00000000  
@000057bc: \$ 2 <= 00000000  
@000057c0: \*00000000 <= 00000000  
@000057c4: \$ 4 <= 00000000  
@000057c8: \$ 4 <= 00000000  
@000057cc: \$ 2 <= 00000000  
@000057d0: \$ 3 <= 00000000  
@000057d4: \$ 3 <= 00000000  
@000057e0: \$ 3 <= 00090000  
@000057ec: \$ 2 <= 00070000  
@000057f0: \$ 4 <= 00090000  
@000057f4: \$ 3 <= 00050000  
@00005804: \$ 3 <= 000f0000  
@00005810: \$ 2 <= 00000000  
@0000581c: \$ 2 <= 00070000  
@00005830: \$ 1 <= 00000000  
@00005834: \$ 4 <= 00000000  
@00005838: \$ 2 <= 00000000  
@0000583c: \$ 3 <= 000c0000  
@00005848: \$ 4 <= 00000000  
@00005854: \$ 4 <= 00090000  
@00005858: \$ 2 <= 000c0000



@0000585c: \$ 1 <= 00009000  
@00005868: \$ 4 <= 00000000  
@00005870: \$ 1 <= 0000000d  
@00005874: \$ 3 <= 0000000d  
@00005878: \$ 3 <= 00000000  
@0000587c: \$ 4 <= 00000000  
@00005880: \*00000000 <= 00000000  
@00005884: \$ 4 <= 000c0000  
@00005888: \$ 2 <= 00009000  
@0000588c: \$ 1 <= fff3ffff  
@00005890: \$ 1 <= 00000000  
@00005894: \$ 3 <= 00000000  
@0000589c: \$ 1 <= 00000000  
@000058a4: \$ 3 <= 00000000  
@000058a8: \$ 2 <= 00000000  
@000058ac: \$ 3 <= 00080000  
@000058bc: \$ 1 <= 00040000  
@000058c4: \$ 1 <= 00020000  
@000058cc: \$ 1 <= 00000000  
@000058d0: \$ 4 <= 00000000  
@000058e0: \$ 3 <= 00000000  
@000058ec: \$ 3 <= 00000000  
@000058f0: \$ 3 <= 00020000  
@00005904: \$ 3 <= 00000000  
@00005908: \$ 1 <= 00000000  
@00005910: \$ 3 <= 00000000  
@00005914: \$ 3 <= 00000001  
@00005918: \$ 3 <= 000e0000  
@00005934: \$ 1 <= 000e0000  
@00005938: \$ 2 <= 00090000  
@0000593c: \$ 1 <= 00000000  
@00005944: \$ 4 <= 00050000  
@0000594c: \$ 2 <= 00000000  
@00005950: \$ 2 <= 00000000  
@00005954: \$ 3 <= 00000000  
@0000595c: \$ 2 <= 00040000  
@00005968: \$ 3 <= 00000000  
@0000596c: \$ 1 <= 00040000  
@00005974: \$ 1 <= 00040000  
@0000597c: \$ 4 <= 0004000a  
@00005984: \$ 1 <= 00000100  
@00005990: \$ 4 <= 00000000  
@000059a0: \$ 3 <= 00000010  
@000059a4: \$ 1 <= 00000010

@000059a8: \$ 4 <= 000f0000  
@000059ac: \$ 2 <= 13000004  
@000059b8: \$ 2 <= 00004c00  
@000059bc: \*00000000 <= 00004c00  
@000059c4: \$ 2 <= 00000001  
@000059c8: \$ 3 <= 00000001  
@000059cc: \$ 1 <= 00000002  
@000059d8: \*00000000 <= 00024c00  
@000059e0: \*00000000 <= 00024c00  
@000059e0: \*00000000 <= 00024c00  
@000059e4: \$ 4 <= 00000007  
@000059e8: \$ 2 <= 00000004  
@000059ec: \$ 4 <= 00000070  
@000059f0: \$ 2 <= 00000000  
@000059f8: \$ 3 <= 00000005  
@00005a00: \$ 4 <= 0000000d  
@00005a04: \$ 1 <= 00000009  
@00005a0c: \$ 2 <= 0000000d  
@00005a10: \$ 2 <= 0000000d  
@00005a14: \$ 2 <= 00000013  
@00005a1c: \$ 1 <= 000c0000  
@00005a20: \$ 2 <= 000c0000  
@00005a24: \$ 2 <= 00090000  
@00005a28: \$ 4 <= fff6ffff  
@00005a30: \$ 2 <= 00000000  
@00005a34: \$ 2 <= 00000000  
@00005a38: \$ 2 <= 00030000  
@00005a40: \$ 1 <= 00000000  
@00005a50: \$ 1 <= 00000000  
@00005a54: \$ 1 <= 00000000  
@00005a58: \$ 1 <= 00004c00  
@00005a60: \*00000000 <= 00024c00  
@00005a68: \*00000000 <= 00024c00  
@00005a78: \$ 1 <= 00094c01  
@00005a84: \$ 3 <= 000e0000  
@00005a8c: \$ 2 <= 00030000  
@00005a90: \$ 2 <= 00030000  
@00005a94: \$ 1 <= 0003000f  
@00005aa0: \$ 1 <= 00000000  
@00005aac: \$ 2 <= 00030000  
@00005ad0: \$ 2 <= 00000000  
@00005ad4: \*00000000 <= 00024c00  
@00005ae0: \$ 1 <= 00010000  
@00005ae4: \$ 3 <= 00000200

@00005aec: \$ 3 <= 00004c00  
@00005af0: \$ 3 <= 00000000  
@00005af8: \$ 4 <= 00040000  
@00005afc: \$ 4 <= 00000000  
@00005b00: \$ 3 <= 00000000  
@00005b04: \$ 3 <= 00004c00  
@00005b0c: \$ 2 <= 00004c02  
@00005b18: \$ 4 <= 00024c00  
@00005b30: \$ 1 <= 00004c00  
@00005b34: \$ 4 <= 00004c02  
@00005b3c: \$ 4 <= 000a0000  
@00005b40: \$ 1 <= 00010000  
@00005b44: \$ 2 <= 000b0000  
@00005b54: \$ 4 <= 00010000  
@00005b58: \$ 4 <= 00040000  
@00005b68: \$ 1 <= 00040000  
@00005b70: \$ 4 <= 00000000  
@00005b74: \$ 2 <= 000a0000  
@00005b84: \$ 2 <= 00010000  
@00005b90: \$ 2 <= 00020000  
@00005b98: \$ 4 <= 00020000  
@00005b9c: \$ 2 <= 00000200  
@00005ba4: \$ 2 <= 00020000  
@00005ba8: \$ 3 <= 00000000  
@00005bb4: \$ 3 <= 00000000  
@00005bc0: \*00000000 <= 00020000  
@00005bcc: \$ 4 <= 00020000  
@00005bd4: \$ 1 <= 80000000  
@00005be0: \$ 3 <= 00000000  
@00005be0: \$ 3 <= 00000000  
@00005be4: \$ 2 <= 00000000  
@00005be8: \*00000000 <= 00020000  
@00005bec: \*00000000 <= 00000000  
@00005bf0: \$ 3 <= 00000000  
@00005bf8: \$ 1 <= 00000000  
@00005bfc: \$ 1 <= 000a0000  
@00005c04: \$ 3 <= 00010000  
@00005c20: \$ 3 <= 0001000f  
@00005c24: \$ 3 <= 00000100  
@00005c30: \$ 2 <= 000a0000  
@00005c34: \$ 3 <= 00000100  
@00005c40: \$ 2 <= 00000000  
@00005c4c: \*00000000 <= 00000000  
@00005c58: \$ 1 <= 00000000

@00005c5c: \$ 4 <= 00000000  
@00005c64: \$ 2 <= 00030000  
@00005c68: \$ 2 <= 000b0000  
@00005c6c: \$ 2 <= 00000000  
@00005c70: \*00000000 <= 00000000  
@00005c78: \$ 2 <= 00000000  
@00005c80: \$ 4 <= 00080000  
@00005c84: \*00000000 <= 00000000  
@00005c88: \$ 3 <= 0000200  
@00005c8c: \$ 4 <= 00000000  
@00005c90: \$ 3 <= 000a0000  
@00005c9c: \$ 4 <= ffffffff  
@00005ca4: \$ 4 <= ffffffff  
@00005ca8: \$ 3 <= 00000001  
@00005cb0: \$ 2 <= 00000000  
@00005cb0: \$ 2 <= 00000000  
@00005cc4: \$ 3 <= 00000000  
@00005ccc: \$ 1 <= 00000000  
@00005cd4: \*00000000 <= 00000000  
@00005cd8: \$ 4 <= 000c0000  
@00005cdc: \$ 4 <= 00080000  
@00005ce0: \$ 4 <= 00000000  
@00005ce4: \$ 4 <= 00030000  
@00005cec: \$ 3 <= 00000000  
@00005cf4: \$ 3 <= 00000000  
@00005cf8: \$ 1 <= 00000000  
@00005cfc: \$ 2 <= 00000000  
@00005d00: \$ 3 <= 00000000  
@00005d08: \$ 3 <= 00000000  
@00005d10: \$ 3 <= 00000000  
@00005d18: \$ 4 <= 00000000  
@00005d20: \$ 3 <= 00000000  
@00005d28: \$ 3 <= 000e0000  
@00005d30: \$ 1 <= 001c0000  
@00005d38: \$ 2 <= 000e0000  
@00005d40: \$ 3 <= 00000000  
@00005d4c: \$ 1 <= 00050000  
@00005d54: \$ 4 <= 0000280  
@00005d58: \$ 2 <= 00000000  
@00005d60: \*00000000 <= 00000080  
@00005d64: \$ 4 <= 00000080  
@00005d6c: \$ 2 <= 00000080  
@00005d74: \$ 2 <= 00000000  
@00005d7c: \$ 1 <= 00000000

@00005d84: \$ 2 <= 00000001  
@00005d88: \$ 2 <= 00040000  
@00005d8c: \$ 3 <= 000e0000  
@00005d94: \$ 1 <= 00060000  
@00005d98: \$ 1 <= 00000000  
@00005d9c: \$ 2 <= 00000000  
@00005da0: \$ 2 <= 00000080  
@00005da8: \$ 2 <= 00000000  
@00005db0: \$ 2 <= 00000000  
@00005db0: \$ 2 <= 00000000  
@00005db8: \$ 3 <= 00000000  
@00005dc0: \$ 2 <= 00020000  
@00005dc8: \$ 3 <= 000a0000  
@00005dcc: \$ 1 <= 0002000f  
@00005dd8: \$ 4 <= 00040000  
@00005de4: \$ 1 <= 00000000  
@00005de8: \$ 4 <= 00040000  
@00005df4: \$ 2 <= 00020000  
@00005dfc: \$ 2 <= 00040005  
@00005e24: \$ 2 <= 00000001  
@00005e28: \$ 1 <= 00000040  
@00005e2c: \$ 1 <= 00000001  
@00005e34: \*00000000 <= 00000180  
@00005e44: \*00000000 <= 00000180  
@00005e48: \$ 4 <= ffffffff  
@00005e58: \$ 1 <= 00000180  
@00005e60: \$ 3 <= 00000001  
@00005e64: \$ 2 <= 00000000  
@00005e74: \$ 1 <= 000d0000  
@00005e7c: \$ 3 <= 00030000  
@00005e80: \$ 3 <= 0003000e  
@00005e84: \$ 3 <= 000d0000  
@00005e8c: \$ 2 <= 000a0000  
@00005e98: \$ 1 <= 00000000  
@00005ea0: \*00000000 <= 00000100  
@00005ea4: \$ 3 <= 00000000  
@00005ea8: \$ 3 <= 00040000  
@00005eb0: \$ 1 <= 000d0000  
@00005eb0: \$ 1 <= 000d0000  
@00005eb8: \$ 1 <= 00001000  
@00005ebc: \$ 1 <= 00002000  
@00005ec0: \*00000000 <= 00000100  
@00005ec4: \$ 3 <= 00001000  
@00005ecc: \$ 3 <= 00000100

```

@00005ed0: $ 3 <= fffffffeff
@00005edc: *00000000 <= 000001ff
@00005ee8: *00000000 <= 000001ff
@00005ef0: $ 4 <= 00040000
@00005ef8: $ 4 <= 00000000
@00005f04: $ 4 <= 00010201
@00005f10: $ 3 <= 00000000
@00005f14: $ 3 <= 00000001
@00005f18: $ 4 <= 00000010
@00005f24: $ 3 <= 00000000
@00005f28: $ 3 <= 13000004
@00005f34: $ 1 <= 000001ff
@00005f38: $ 3 <= ffffffff
@00005f40: $ 1 <= 00000000
@00005f48: $ 4 <= 04000000
@00005f4c: $ 1 <= ffffffff
@00005f50: $ 2 <= 00000000
@00005f58: $ 1 <= 00000001

```

### 3. 综合测试

```

ori $1, $0, 10
ori $2, $0, 13
ori $3, $0, 6
ori $4, $0, 0
sw $2, 0($0)
sw $3, 4($0)
sw $2, 8($0)
sw $4, 12($0)
sw $4, 16($0)
sw $3, 20($0)
sw $4, 24($0)
sw $3, 28($0)
sw $4, 32($0)
sw $1, 36($0)
sw $2, 40($0)
sw $4, 44($0)
sw $2, 48($0)
sw $4, 52($0)
sw $2, 56($0)
sw $2, 60($0)
sw $4, 64($0)
sw $3, 68($0)
sw $1, 72($0)
sw $4, 76($0)
sw $1, 80($0)

```

```

sw $4, 84($0)
sw $3, 88($0)
sw $4, 92($0)
sw $2, 96($0)
sw $2, 100($0)
sw $3, 104($0)
sw $4, 108($0)
sw $2, 112($0)
sw $3, 116($0)
sw $2, 120($0)
sw $1, 124($0)
mthi $2
nor $2, $2, $2
mult $2, $2
lui $1, 15
TAG1:
beq $1, $1, TAG2
mflo $1
ori $1, $1, 8
bgtz $1, TAG2
TAG2:
mtlo $1
mthi $1
mtlo $1
slti $2, $1, 11
TAG3:
lb $2, 0($2)
lb $2, 0($2)
sra $3, $2, 6
sw $2, 0($2)
TAG4:
sw $3, 0($3)
lui $2, 3
blez $3, TAG5
multu $3, $2
TAG5:
mult $2, $2
mtlo $2
lui $1, 6
lui $2, 1
TAG6:
mfhi $4
nor $2, $2, $4
bgtz $2, TAG7

```

```

lb $1, 0($4)
TAG7:
sw $1, 0($1)
multu $1, $1
lui $3, 8
sll $0, $0, 0
TAG8:
srlv $1, $3, $3
lui $4, 10
lui $1, 9
addiu $3, $4, 9
TAG9:
sll $0, $0, 0
sltu $1, $3, $1
bne $3, $1, TAG10
sw $1, 0($1)
TAG10:
bltz $1, TAG11
lui $3, 15
mthi $1
sll $0, $0, 0
TAG11:
mthi $3
div $3, $3
sll $0, $0, 0
divu $1, $3
TAG12:
mult $1, $1
multu $1, $1
mfhi $3
mult $1, $3
TAG13:
sb $3, 0($3)
blez $3, TAG14
lui $3, 11
ori $3, $3, 3
TAG14:
sll $0, $0, 0
mflo $4
sb $4, 0($4)
multu $3, $4
TAG15:
mtlo $4
mtlo $4

```



```

lui $3, 9
mult $3, $4
TAG16:
mtlo $3
bltz $3, TAG17
sll $0, $0, 0
lui $1, 0
TAG17:
mtlo $1
mtlo $1
mfhi $1
sltu $1, $1, $1
TAG18:
sb $1, 0($1)
mflo $2
mthi $2
beq $2, $1, TAG19
TAG19:
mthi $2
andi $1, $2, 3
sw $1, 0($2)
sb $2, 0($2)
TAG20:
lui $2, 13
lui $2, 6
div $2, $2
mfhi $3
TAG21:
slt $1, $3, $3
mtlo $3
mtlo $3
andi $4, $3, 0
TAG22:
mthi $4
slti $3, $4, 2
lb $3, 0($3)
andi $4, $4, 2
TAG23:
bltz $4, TAG24
sb $4, 0($4)
mtlo $4
multu $4, $4
TAG24:
bltz $4, TAG25

```

```

lh $3, 0($4)
mult $4, $3
sh $3, 0($3)
TAG25:
lbu $4, 0($3)
mfhi $1
and $1, $3, $1
bltz $3, TAG26
TAG26:
lhu $2, 0($1)
blez $1, TAG27
multu $1, $2
beq $2, $2, TAG27
TAG27:
lhu $3, 0($2)
mfhi $4
lui $2, 0
slti $2, $2, 4
TAG28:
mtlo $2
bltz $2, TAG29
divu $2, $2
lui $3, 2
TAG29:
sll $0, $0, 0
beq $3, $3, TAG30
ori $2, $4, 2
addiu $2, $4, 14
TAG30:
div $2, $2
mfhi $4
lhu $1, 0($2)
mtlo $4
TAG31:
mfhi $4
mflo $3
lb $3, 0($1)
blez $3, TAG32
TAG32:
add $2, $3, $3
xor $2, $3, $3
lui $2, 10
beq $2, $2, TAG33
TAG33:

```

```

mult $2, $2
mfhi $1
blez $2, TAG34
subu $3, $1, $2
TAG34:
sll $0, $0, 0
mult $3, $4
sll $0, $0, 0
mthi $3
TAG35:
mult $4, $4
mult $4, $4
bgtz $4, TAG36
mfhi $1
TAG36:
multu $1, $1
bgez $1, TAG37
mult $1, $1
mtlo $1
TAG37:
bltz $1, TAG38
sh $1, 0($1)
mfhi $3
mtlo $1
TAG38:
mfhi $3
nor $4, $3, $3
sb $3, 1($4)
slt $3, $4, $3
TAG39:
lui $4, 3
mfhi $2
mflo $3
sltu $1, $4, $4
TAG40:
lh $3, 0($1)
lbu $1, 0($1)
bne $1, $3, TAG41
lb $3, 0($1)
TAG41:
xori $1, $3, 6
addiu $1, $1, 9
lui $2, 2
or $2, $1, $1

```

```

TAG42:
lb $3, 0($2)
lh $3, 0($3)
andi $4, $3, 15
mtlo $3
TAG43:
sll $1, $4, 7
mtlo $1
mflo $3
multu $3, $1
TAG44:
beq $3, $3, TAG45
mfhi $3
mult $3, $3
sltiu $3, $3, 1
TAG45:
mflo $4
sllv $2, $4, $3
lui $4, 12
srlv $1, $4, $4
TAG46:
beq $1, $1, TAG47
sll $0, $0, 0
lb $1, 0($1)
multu $1, $1
TAG47:
addu $4, $1, $1
beq $1, $1, TAG48
sll $0, $0, 0
blez $1, TAG48
TAG48:
andi $4, $3, 4
mult $4, $3
sh $4, 0($3)
addu $3, $3, $4
TAG49:
lui $3, 7
mfhi $2
mflo $3
ori $2, $2, 1
TAG50:
andi $3, $2, 10
srlv $2, $2, $2
beq $3, $3, TAG51

```

```

sb $2, 0($2)
TAG51:
bne $2, $2, TAG52
ori $1, $2, 12
lui $2, 14
lw $2, 0($1)
TAG52:
bne $2, $2, TAG53
sll $4, $2, 15
sb $2, 0($4)
bne $2, $4, TAG53
TAG53:
sw $4, 0($4)
lw $2, 0($4)
andi $2, $2, 13
mtlo $4
TAG54:
mthi $2
lw $2, 0($2)
sh $2, 0($2)
lw $1, 0($2)
TAG55:
mflo $3
slti $3, $3, 2
mtlo $1
mult $1, $3
TAG56:
sb $3, 0($3)
bgez $3, TAG57
lui $2, 11
blez $3, TAG57
TAG57:
sll $0, $0, 0
lui $2, 6
multu $2, $2
beq $2, $2, TAG58
TAG58:
srl $1, $2, 9
sb $1, -768($1)
mthi $1
mult $1, $1
TAG59:
lui $1, 11
sll $0, $0, 0

```

```

bne $1, $1, TAG60
andi $2, $1, 7
TAG60:
slt $3, $2, $2
andi $4, $2, 9
mult $2, $2
mtlo $3
TAG61:
sw $4, 0($4)
mfhi $1
or $3, $1, $1
lui $3, 1
TAG62:
div $3, $3
mtlo $3
mtlo $3
subu $2, $3, $3
TAG63:
sll $4, $2, 1
bne $4, $4, TAG64
lui $1, 4
mfhi $1
TAG64:
mfhi $4
sh $1, 0($1)
lui $4, 9
bne $1, $1, TAG65
TAG65:
lui $2, 2
mflo $1
xori $2, $1, 2
mtlo $2
TAG66:
beq $2, $2, TAG67
multu $2, $2
sw $2, 0($2)
sllv $4, $2, $2
TAG67:
beq $4, $4, TAG68
addiu $3, $4, 11
bltz $3, TAG68
lui $4, 6
TAG68:
sll $0, $0, 0

```

```

sll $0, $0, 0
sll $0, $0, 0
beq $1, $2, TAG69
TAG69:
mthi $2
lui $3, 4
bgtz $3, TAG70
lui $1, 3
TAG70:
mfhi $1
mtlo $1
mfhi $3
lui $3, 12
TAG71:
lui $4, 4
mthi $3
beq $4, $4, TAG72
multu $4, $3
TAG72:
lui $1, 14
slti $2, $4, 9
sll $0, $0, 0
lh $1, 0($2)
TAG73:
srav $4, $1, $1
nor $3, $4, $1
mtlo $4
sra $2, $4, 3
TAG74:
bne $2, $2, TAG75
lui $4, 4
mfhi $1
sll $0, $0, 0
TAG75:
lh $2, 0($1)
slt $2, $2, $2
bgez $2, TAG76
lui $1, 5
TAG76:
sll $0, $0, 0
blez $4, TAG77
sll $0, $0, 0
sll $0, $0, 0
TAG77:

```

```

bgtz $4, TAG78
mflo $1
mflo $2
andi $1, $1, 7
TAG78:
lbu $1, 0($1)
mthi $1
lui $3, 1
sltiu $3, $1, 2
TAG79:
sltu $1, $3, $3
mfhi $3
mtlo $3
mthi $1
TAG80:
lw $2, 0($3)
addu $3, $2, $3
sb $3, 0($3)
sltu $3, $3, $3
TAG81:
sw $3, 0($3)
mult $3, $3
mtlo $3
sw $3, 0($3)
TAG82:
sh $3, 0($3)
sltiu $3, $3, 13
andi $1, $3, 0
sb $3, 0($3)
TAG83:
bgtz $1, TAG84
lui $1, 10
mfhi $1
bgtz $1, TAG84
TAG84:
sh $1, 0($1)
sh $1, 0($1)
mfhi $2
mtlo $2
TAG85:
beq $2, $2, TAG86
lhu $1, 0($2)
mflo $2
lui $1, 13

```



```

TAG86:
    slti $2, $1, 10
    subu $3, $2, $2
    mflo $3
    mult $1, $2
TAG87:
    bgtz $3, TAG88
    mult $3, $3
    mthi $3
    sb $3, 0($3)
TAG88:
    ori $4, $3, 10
    slt $3, $3, $4
    mfhi $1
    xor $4, $1, $1
TAG89:
    lb $3, 0($4)
    slti $2, $3, 14
    addi $4, $3, 4
    lbu $2, 0($2)
TAG90:
    sh $2, 0($2)
    lb $1, 0($2)
    mfhi $3
    sw $3, 0($2)
TAG91:
    sb $3, 0($3)
    srlv $2, $3, $3
    mthi $2
    lhu $1, 0($2)
TAG92:
    lui $4, 8
    mflo $2
    mtlo $2
    bltz $4, TAG93
TAG93:
    lui $1, 9
    addu $3, $1, $2
    bgtz $1, TAG94
    lh $1, 0($2)
TAG94:
    blez $1, TAG95
    mult $1, $1
    bgtz $1, TAG95

```

```

mflo $2
TAG95:
multu $2, $2
blez $2, TAG96
mthi $2
mfhi $2
TAG96:
srlv $1, $2, $2
mult $2, $1
beq $1, $2, TAG97
sll $1, $2, 1
TAG97:
mthi $1
multu $1, $1
bne $1, $1, TAG98
mthi $1
TAG98:
mtlo $1
xori $2, $1, 1
multu $1, $1
sb $2, 0($2)
TAG99:
bgtz $2, TAG100
sll $4, $2, 9
bne $2, $4, TAG100
sb $2, 0($4)
TAG100:
lui $2, 5
lui $4, 10
beq $4, $4, TAG101
sltiu $2, $4, 8
TAG101:
sh $2, 0($2)
slt $3, $2, $2
mthi $2
addiu $1, $2, 5
TAG102:
lbu $4, 0($1)
addi $4, $4, 9
bltz $4, TAG103
lbu $1, 0($4)
TAG103:
bne $1, $1, TAG104
lui $1, 3

```

```

mtlo $1
multu $1, $1
TAG104:
mthi $1
multu $1, $1
mflo $3
lui $4, 10
TAG105:
multu $4, $4
srav $2, $4, $4
sll $3, $2, 8
sll $0, $0, 0
TAG106:
sll $0, $0, 0
bgtz $2, TAG107
multu $2, $2
lb $2, 0($2)
TAG107:
sll $0, $0, 0
or $3, $2, $2
divu $2, $3
beq $2, $2, TAG108
TAG108:
sll $2, $3, 8
mthi $3
mflo $2
sll $2, $2, 1
TAG109:
addiu $3, $2, 15
mthi $3
and $4, $2, $3
bne $3, $2, TAG110
TAG110:
mtlo $4
mthi $4
bgtz $4, TAG111
mflo $4
TAG111:
lui $3, 12
beq $3, $4, TAG112
mfhi $4
sb $4, 0($4)
TAG112:
bgez $4, TAG113

```

```

lb $4, 0($4)
sll $2, $4, 7
mflo $1
TAG113:
lui $1, 5
mfhi $3
sll $0, $0, 0
sra $1, $1, 0
TAG114:
bgtz $1, TAG115
mfhi $3
sw $3, 0($1)
bne $3, $1, TAG115
TAG115:
mflo $3
bgtz $3, TAG116
multu $3, $3
mflo $2
TAG116:
sltiu $1, $2, 2
mfhi $1
mtlo $1
beq $2, $2, TAG117
TAG117:
xori $3, $1, 14
bne $1, $1, TAG118
mthi $1
srl $2, $3, 9
TAG118:
lui $4, 7
mult $4, $2
nor $1, $4, $2
sll $0, $0, 0
TAG119:
lui $2, 9
sll $0, $0, 0
mult $2, $1
lui $4, 11
TAG120:
sllv $1, $4, $4
lui $2, 2
mthi $2
sll $0, $0, 0
TAG121:

```

```

bne $2, $2, TAG122
nor $3, $2, $2
subu $4, $2, $3
sra $3, $4, 9
TAG122:
sb $3, -512($3)
lh $3, -512($3)
mtlo $3
lw $4, 0($3)
TAG123:
mthi $4
beq $4, $4, TAG124
lw $4, 0($4)
lh $3, 0($4)
TAG124:
mtlo $3
bne $3, $3, TAG125
lui $2, 0
blez $3, TAG125
TAG125:
lui $4, 4
mtlo $2
lui $2, 12
andi $4, $2, 10
TAG126:
mthi $4
beq $4, $4, TAG127
sub $4, $4, $4
mthi $4
TAG127:
mult $4, $4
xor $2, $4, $4
mthi $4
mthi $4
TAG128:
mtlo $2
addiu $2, $2, 14
nor $1, $2, $2
mfhi $3
TAG129:
mfhi $1
multu $3, $3
mtlo $1
bgtz $3, TAG130

```

```

TAG130:
srav $1, $1, $1
sh $1, 0($1)
mfhi $4
lui $3, 14
TAG131:
bne $3, $3, TAG132
sra $4, $3, 6
bne $4, $4, TAG132
sra $1, $4, 6
TAG132:
mtlo $1
mtlo $1
lbu $3, -224($1)
mfhi $2
TAG133:
lhu $4, 0($2)
lbu $1, 0($2)
sb $2, 0($4)
mflo $2
TAG134:
lui $3, 14
slti $2, $3, 0
bgtz $3, TAG135
multu $2, $2
TAG135:
mtlo $2
mult $2, $2
srl $4, $2, 7
lb $1, 0($2)
TAG136:
beq $1, $1, TAG137
mtlo $1
slti $3, $1, 3
mtlo $1
TAG137:
multu $3, $3
lui $1, 8
blez $3, TAG138
lui $2, 1
TAG138:
bne $2, $2, TAG139
lui $3, 2
subu $4, $2, $3

```

```

sll $0, $0, 0
TAG139:
subu $3, $2, $2
sll $0, $0, 0
mult $2, $3
beq $3, $3, TAG140
TAG140:
mtlo $3
lhu $2, 0($3)
mult $3, $3
sb $3, 0($3)
TAG141:
lh $3, 0($2)
blez $2, TAG142
srav $2, $3, $3
slti $3, $3, 1
TAG142:
sltiu $1, $3, 5
lui $4, 4
beq $1, $1, TAG143
mtlo $1
TAG143:
mthi $4
mfhi $4
bgtz $4, TAG144
subu $3, $4, $4
TAG144:
mtlo $3
bne $3, $3, TAG145
nor $2, $3, $3
bltz $2, TAG145
TAG145:
mflo $4
lh $3, 0($4)
mult $4, $4
lh $4, 0($4)
TAG146:
mthi $4
multu $4, $4
multu $4, $4
lui $1, 10
TAG147:
srl $1, $1, 13
mthi $1

```

```

lw $1, 0($1)
lhu $4, 0($1)
TAG148:
mthi $4
multu $4, $4
mflo $3
lui $1, 1
TAG149:
addiu $1, $1, 2
mflo $4
srav $4, $4, $4
beq $1, $4, TAG150
TAG150:
addiu $3, $4, 15
ori $3, $3, 2
lbu $2, 0($3)
addu $1, $2, $3
TAG151:
sb $1, 0($1)
sb $1, 0($1)
mthi $1
lui $2, 6
TAG152:
mthi $2
beq $2, $2, TAG153
mfhi $3
srav $1, $2, $2
TAG153:
andi $1, $1, 5
div $1, $1
divu $1, $1
mflo $3
TAG154:
multu $3, $3
bne $3, $3, TAG155
sllv $2, $3, $3
blez $2, TAG155
TAG155:
lui $1, 13
mfhi $4
sll $0, $0, 0
lui $1, 10
TAG156:
mflo $3

```



```

bne $1, $1, TAG157
mfhi $2
multu $3, $2
TAG157:
sh $2, 0($2)
multu $2, $2
andi $2, $2, 11
beq $2, $2, TAG158
TAG158:
mthi $2
lui $3, 15
mthi $2
mfhi $3
TAG159:
lui $2, 5
blez $2, TAG160
sh $3, 0($3)
lui $2, 3
TAG160:
mtlo $2
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG161:
mtlo $2
mtlo $2
divu $2, $2
beq $2, $2, TAG162
TAG162:
div $2, $2
xor $3, $2, $2
sllv $3, $3, $2
beq $2, $2, TAG163
TAG163:
lbu $3, 0($3)
mthi $3
beq $3, $3, TAG164
lui $3, 15
TAG164:
blez $3, TAG165
lui $2, 8
mthi $3
mflo $1
TAG165:

```

```

addu $3, $1, $1
addiu $3, $1, 2
mthi $3
mfhi $2
TAG166:
mfhi $1
lb $3, 0($2)
bne $1, $3, TAG167
mflo $3
TAG167:
bne $3, $3, TAG168
lui $1, 7
sb $1, 0($3)
bne $3, $3, TAG168
TAG168:
mult $1, $1
lui $2, 7
mtlo $2
bgtz $1, TAG169
TAG169:
multu $2, $2
multu $2, $2
mtlo $2
sll $0, $0, 0
TAG170:
lui $2, 13
sll $0, $0, 0
mflo $1
mtlo $2
TAG171:
srl $3, $1, 5
sltiu $1, $1, 4
lb $1, 0($1)
bne $1, $1, TAG172
TAG172:
sh $1, 0($1)
addu $3, $1, $1
mtlo $1
bltz $1, TAG173
TAG173:
lb $1, 0($3)
mflo $3
lhu $4, 0($3)
lw $3, 0($4)

```

```

TAG174:
bne $3, $3, TAG175
mfhi $4
beq $4, $3, TAG175
mthi $4
TAG175:
divu $4, $4
srav $4, $4, $4
mthi $4
mtlo $4
TAG176:
mthi $4
mfhi $3
and $3, $4, $4
mtlo $3
TAG177:
ori $1, $3, 2
lhu $2, 0($3)
sh $2, 0($3)
bne $1, $1, TAG178
TAG178:
sh $2, 0($2)
beq $2, $2, TAG179
lb $4, 0($2)
mthi $2
TAG179:
sll $1, $4, 10
lui $4, 14
div $1, $4
beq $1, $1, TAG180
TAG180:
sll $3, $4, 5
bgtz $4, TAG181
mult $4, $3
lui $3, 7
TAG181:
slt $2, $3, $3
lui $2, 4
sll $0, $0, 0
sll $0, $0, 0
TAG182:
beq $2, $2, TAG183
divu $2, $2
sb $2, 0($2)

```

```

mthi $2
TAG183:
sll $0, $0, 0
beq $1, $1, TAG184
mult $2, $1
lhu $1, 0($1)
TAG184:
xori $1, $1, 15
lb $4, 0($1)
sb $4, 0($4)
lb $3, 0($4)
TAG185:
mflo $4
or $2, $4, $3
mflo $3
lbu $4, 0($2)
TAG186:
andi $2, $4, 15
addiu $1, $4, 5
mtlo $1
slt $2, $2, $2
TAG187:
beq $2, $2, TAG188
lui $1, 7
ori $2, $2, 4
beq $2, $1, TAG188
TAG188:
mthi $2
xor $3, $2, $2
lui $3, 15
lh $2, 0($2)
TAG189:
lbu $2, 0($2)
mflo $4
lui $1, 12
mflo $3
TAG190:
sh $3, 0($3)
sltiu $2, $3, 4
bne $3, $2, TAG191
mfhi $3
TAG191:
addiu $2, $3, 3
sll $1, $3, 6

```

```

lb $1, 0($2)
blez $3, TAG192
TAG192:
mtlo $1
mtlo $1
lhu $4, 0($1)
bne $1, $4, TAG193
TAG193:
mflo $2
sub $4, $2, $4
sw $4, 0($4)
srl $4, $2, 6
TAG194:
mflo $2
mthi $4
lw $4, 0($4)
beq $4, $4, TAG195
TAG195:
lb $2, 0($4)
mtlo $2
mflo $4
subu $3, $4, $4
TAG196:
addiu $3, $3, 11
sra $4, $3, 8
divu $3, $3
lui $1, 8
TAG197:
bltz $1, TAG198
addu $4, $1, $1
mfhi $2
mtlo $4
TAG198:
bgtz $2, TAG199
mfhi $1
multu $2, $1
lh $3, 0($1)
TAG199:
and $3, $3, $3
sb $3, 0($3)
lui $2, 0
mtlo $3
TAG200:
mult $2, $2

```

```

lui $1, 1
blez $1, TAG201
slti $4, $2, 2
TAG201:
mfhi $1
bne $4, $1, TAG202
sb $4, 0($4)
lb $4, 0($1)
TAG202:
addu $2, $4, $4
lui $4, 11
bgtz $4, TAG203
sll $1, $2, 12
TAG203:
sb $1, -8192($1)
blez $1, TAG204
mflo $2
mult $2, $2
TAG204:
srl $2, $2, 11
mult $2, $2
mult $2, $2
bgtz $2, TAG205
TAG205:
mfhi $1
lw $4, 0($2)
lui $3, 9
mthi $2
TAG206:
bgez $3, TAG207
mfhi $3
mthi $3
mthi $3
TAG207:
xori $1, $3, 0
mtlo $3
sltu $1, $3, $1
sra $2, $3, 14
TAG208:
mtlo $2
xor $1, $2, $2
mtlo $1
srlv $1, $2, $2
TAG209:

```

```

mflo $1
lw $4, 0($1)
bne $1, $1, TAG210
lui $2, 2
TAG210:
sll $0, $0, 0
blez $2, TAG211
mtlo $2
bgtz $2, TAG211
TAG211:
lui $2, 4
mult $2, $2
bne $2, $2, TAG212
srl $2, $2, 9
TAG212:
bgez $2, TAG213
mthi $2
lui $3, 11
bltz $3, TAG213
TAG213:
sh $3, 0($3)
mult $3, $3
lh $4, 0($3)
lui $1, 12
TAG214:
div $1, $1
subu $1, $1, $1
sb $1, 0($1)
lhu $3, 0($1)
TAG215:
nor $4, $3, $3
mult $3, $3
srlv $1, $3, $3
sw $1, 0($1)
TAG216:
lui $1, 9
subu $4, $1, $1
bltz $1, TAG217
mult $1, $1
TAG217:
lui $2, 13
mthi $4
bne $4, $4, TAG218
xori $3, $4, 2

```

```

TAG218:
lhu $4, 0($3)
sllv $3, $3, $3
mtlo $3
lb $4, 0($3)
TAG219:
lui $4, 12
mult $4, $4
nor $1, $4, $4
sltiu $1, $4, 15
TAG220:
mult $1, $1
sw $1, 0($1)
bne $1, $1, TAG221
mfhi $2
TAG221:
lw $1, 0($2)
mtlo $2
lw $4, 0($1)
bne $4, $4, TAG222
TAG222:
addiu $2, $4, 8
sh $4, 0($4)
bgez $2, TAG223
sra $1, $2, 9
TAG223:
mtlo $1
blez $1, TAG224
sb $1, 0($1)
bltz $1, TAG224
TAG224:
mfhi $4
sllv $3, $1, $1
beq $4, $1, TAG225
lui $2, 13
TAG225:
beq $2, $2, TAG226
srlv $1, $2, $2
beq $2, $2, TAG226
mfhi $4
TAG226:
lb $1, 0($4)
bgez $4, TAG227
addiu $3, $1, 2

```



```

bgez $1, TAG227
TAG227:
sb $3, 0($3)
mfhi $1
mult $1, $3
divu $3, $3
TAG228:
mflo $4
srl $2, $4, 13
mflo $3
lbu $4, 0($3)
TAG229:
mthi $4
mfhi $2
sw $2, 0($2)
mthi $2
TAG230:
mthi $2
blez $2, TAG231
mfhi $3
mult $3, $3
TAG231:
mfhi $3
sb $3, 0($3)
blez $3, TAG232
multu $3, $3
TAG232:
sltu $4, $3, $3
mtlo $4
mult $4, $3
mult $4, $3
TAG233:
lui $2, 2
beq $4, $4, TAG234
lui $4, 4
sw $4, 0($2)
TAG234:
nor $4, $4, $4
mfhi $1
sw $1, 0($1)
blez $4, TAG235
TAG235:
mtlo $1
lw $1, 0($1)

```

```

bne $1, $1, TAG236
lh $3, 0($1)
TAG236:
lbu $2, 0($3)
blez $2, TAG237
sltu $2, $2, $3
or $4, $2, $2
TAG237:
mtlo $4
mtlo $4
srlv $4, $4, $4
mthi $4
TAG238:
mthi $4
xori $4, $4, 6
sb $4, 0($4)
lui $2, 11
TAG239:
blez $2, TAG240
mfhi $1
nor $3, $2, $2
sllv $3, $3, $1
TAG240:
sll $0, $0, 0
sra $2, $3, 15
beq $2, $3, TAG241
lui $1, 13
TAG241:
mflo $1
multu $1, $1
sltiu $3, $1, 3
lui $3, 0
TAG242:
bgez $3, TAG243
lui $1, 7
srl $2, $3, 4
sltiu $3, $1, 9
TAG243:
add $2, $3, $3
mfhi $1
bne $1, $3, TAG244
subu $2, $2, $2
TAG244:
sll $3, $2, 5

```

```
mflo $2
srlv $1, $2, $3
lui $4, 15
TAG245:
mthi $4
sll $0, $0, 0
addiu $1, $4, 2
addu $4, $1, $1
TAG246:
blez $4, TAG247
multu $4, $4
sll $0, $0, 0
subu $3, $4, $4
TAG247:
slt $1, $3, $3
ori $3, $1, 15
lb $1, 0($3)
lui $4, 11
TAG248:
mflo $1
sll $0, $0, 0
multu $1, $1
sll $0, $0, 0
TAG249:
mflo $3
lui $1, 12
lui $1, 15
mult $1, $1
TAG250:
sll $0, $0, 0
divu $1, $1
bgtz $1, TAG251
multu $1, $1
TAG251:
div $1, $1
divu $1, $1
mthi $1
mtlo $1
TAG252:
mthi $1
bgtz $1, TAG253
mtlo $1
addu $1, $1, $1
TAG253:
```

```

sll $0, $0, 0
sll $0, $0, 0
lui $4, 15
mthi $2
TAG254:
ori $1, $4, 2
multu $4, $4
sra $3, $1, 5
divu $1, $4
TAG255:
sll $0, $0, 0
divu $3, $3
bgez $4, TAG256
lui $1, 14
TAG256:
mthi $1
multu $1, $1
mfhi $3
sll $0, $0, 0
TAG257:
bne $3, $3, TAG258
xor $3, $3, $3
bgez $3, TAG258
lb $4, 0($3)
TAG258:
sb $4, 0($4)
bgtz $4, TAG259
mfhi $1
div $4, $1
TAG259:
mflo $2
lui $1, 15
andi $3, $1, 8
beq $3, $3, TAG260
TAG260:
lbu $1, 0($3)
multu $3, $1
and $1, $1, $1
multu $1, $3
TAG261:
mthi $1
bgez $1, TAG262
mult $1, $1
mflo $1

```

```

TAG262:
bne $1, $1, TAG263
sh $1, 0($1)
sllv $2, $1, $1
mflo $3
TAG263:
mthi $3
sh $3, 0($3)
sh $3, 0($3)
lui $1, 4
TAG264:
lui $3, 7
bne $1, $1, TAG265
mflo $3
blez $3, TAG265
TAG265:
sw $3, 0($3)
lui $3, 7
bltz $3, TAG266
addiu $2, $3, 6
TAG266:
mfhi $2
mtlo $2
sw $2, 0($2)
beq $2, $2, TAG267
TAG267:
lw $1, 0($2)
sltiu $2, $2, 8
multu $2, $1
lui $3, 6
TAG268:
blez $3, TAG269
lui $2, 12
addiu $1, $2, 0
mtlo $1
TAG269:
mtlo $1
sll $0, $0, 0
subu $4, $1, $1
lbu $2, 0($4)
TAG270:
bltz $2, TAG271
sh $2, 0($2)
sra $1, $2, 8

```

```

bgtz $2, TAG271
TAG271:
mtlo $1
sub $1, $1, $1
srl $2, $1, 15
srav $1, $1, $1
TAG272:
multu $1, $1
srav $4, $1, $1
sb $1, 0($1)
sb $4, 0($1)
TAG273:
mult $4, $4
bltz $4, TAG274
lw $4, 0($4)
lui $3, 14
TAG274:
divu $3, $3
mtlo $3
sll $0, $0, 0
bne $3, $1, TAG275
TAG275:
addi $3, $1, 2
sh $3, 0($3)
lui $3, 13
mflo $3
TAG276:
blez $3, TAG277
sll $0, $0, 0
beq $3, $3, TAG277
addu $3, $3, $3
TAG277:
sltiu $2, $3, 6
sb $3, 0($2)
srlv $2, $3, $3
sll $0, $0, 0
TAG278:
mtlo $3
div $3, $3
mfhi $1
and $4, $1, $1
TAG279:
bltz $4, TAG280
slti $4, $4, 13

```

```

sb $4, 0($4)
lb $2, 0($4)
TAG280:
beq $2, $2, TAG281
nor $4, $2, $2
divu $2, $4
mtlo $4
TAG281:
blez $4, TAG282
addiu $1, $4, 4
mult $1, $1
lb $1, 0($4)
TAG282:
sh $1, 0($1)
mthi $1
mfhi $3
addu $2, $1, $1
TAG283:
beq $2, $2, TAG284
lui $2, 0
lw $1, 0($2)
xori $2, $2, 2
TAG284:
sh $2, 0($2)
lb $2, 0($2)
mthi $2
lb $4, 0($2)
TAG285:
mtlo $4
mthi $4
mthi $4
mult $4, $4
TAG286:
mflo $1
bgez $4, TAG287
srl $4, $4, 13
lui $2, 14
TAG287:
mult $2, $2
mflo $4
mfhi $4
bne $4, $4, TAG288
TAG288:
addi $4, $4, 9

```

```

lui $1, 4
xor $1, $4, $1
sb $1, 0($4)
TAG289:
sltiu $1, $1, 5
sb $1, 0($1)
addiu $1, $1, 2
div $1, $1
TAG290:
sllv $4, $1, $1
sh $4, 0($1)
sw $4, 0($4)
sh $1, 0($1)
TAG291:
blez $4, TAG292
mflo $4
slti $4, $4, 14
bne $4, $4, TAG292
TAG292:
lui $4, 9
sll $0, $0, 0
sll $0, $0, 0
multu $4, $4
TAG293:
mflo $4
sw $1, 0($4)
srav $2, $1, $4
div $2, $1
TAG294:
mfhi $3
sb $2, 0($2)
mflo $4
beq $2, $2, TAG295
TAG295:
mfhi $4
xori $1, $4, 3
sra $4, $4, 1
mthi $4
TAG296:
mfhi $2
xori $2, $2, 0
sll $4, $2, 11
bltz $4, TAG297
TAG297:

```



```

multu $4, $4
bgez $4, TAG298
lh $2, 0($4)
mfhi $2
TAG298:
sh $2, 0($2)
sb $2, 0($2)
mflo $3
bgtz $2, TAG299
TAG299:
sra $4, $3, $3
mult $3, $3
blez $4, TAG300
multu $3, $3
TAG300:
sub $4, $4, $4
mfhi $2
lui $4, 11
mfhi $4
TAG301:
lw $4, 0($4)
sll $0, $0, 0
beq $4, $4, TAG302
sll $0, $0, 0
TAG302:
lui $1, 2
multu $4, $1
lui $1, 12
sll $0, $0, 0
TAG303:
sll $0, $0, 0
mtlo $1
mthi $1
addiu $3, $1, 15
TAG304:
sll $0, $0, 0
sll $0, $0, 0
bgtz $3, TAG305
lui $2, 11
TAG305:
slti $2, $2, 10
sllv $4, $2, $2
mult $2, $4
multu $2, $2

```

```

TAG306:
bne $4, $4, TAG307
mflo $4
mflo $3
mflo $4
TAG307:
sb $4, 0($4)
mult $4, $4
multu $4, $4
lb $1, 0($4)
TAG308:
bne $1, $1, TAG309
and $2, $1, $1
beq $1, $1, TAG309
nor $3, $2, $1
TAG309:
mthi $3
mflo $4
addiu $3, $3, 12
srlv $1, $3, $3
TAG310:
lui $1, 10
mfhi $3
sll $0, $0, 0
sra $4, $3, 7
TAG311:
beq $4, $4, TAG312
lbu $4, 1($4)
srlv $3, $4, $4
multu $4, $4
TAG312:
div $3, $3
divu $3, $3
sw $3, 1($3)
beq $3, $3, TAG313
TAG313:
andi $4, $3, 12
srlv $3, $4, $3
lb $4, 0($4)
mfhi $3
TAG314:
sw $3, 0($3)
addiu $3, $3, 1
bne $3, $3, TAG315

```

```

divu $3, $3
TAG315:
bne $3, $3, TAG316
lui $4, 4
subu $4, $3, $4
bltz $4, TAG316
TAG316:
mfhi $1
lh $1, 0($1)
lui $3, 0
mthi $1
TAG317:
lh $1, 0($3)
lui $1, 4
srl $4, $3, 11
multu $1, $3
TAG318:
bgez $4, TAG319
mult $4, $4
sw $4, 0($4)
lui $4, 8
TAG319:
bne $4, $4, TAG320
mthi $4
sw $4, 0($4)
beq $4, $4, TAG320
TAG320:
sb $4, 0($4)
mflo $1
bgez $4, TAG321
lui $3, 12
TAG321:
ori $1, $3, 11
lui $4, 12
slti $4, $3, 9
xor $3, $4, $1
TAG322:
addiu $2, $3, 14
lui $3, 6
sllv $4, $3, $3
sll $0, $0, 0
TAG323:
bne $3, $3, TAG324
multu $3, $3

```

```

lui $4, 5
sll $0, $0, 0
TAG324:
sll $0, $0, 0
mfhi $4
sb $4, 0($4)
mtlo $4
TAG325:
lui $2, 6
bgez $4, TAG326
addu $3, $2, $2
mtlo $3
TAG326:
bne $3, $3, TAG327
sllv $2, $3, $3
lui $1, 6
lui $2, 14
TAG327:
sltu $1, $2, $2
mfhi $4
mthi $2
blez $2, TAG328
TAG328:
mthi $4
multu $4, $4
slti $3, $4, 9
lui $3, 13
TAG329:
mthi $3
bne $3, $3, TAG330
sll $0, $0, 0
addu $3, $3, $3
TAG330:
lui $1, 3
bgez $3, TAG331
sll $0, $0, 0
sw $3, 0($3)
TAG331:
sll $0, $0, 0
sllv $4, $3, $3
mfhi $1
mfhi $2
TAG332:
lui $1, 6

```

```

sltiu $3, $2, 0
beq $2, $2, TAG333
lhu $4, 0($3)
TAG333:
mtlo $4
mthi $4
lui $1, 11
multu $4, $1
TAG334:
bne $1, $1, TAG335
mfhi $3
multu $1, $1
subu $2, $3, $3
TAG335:
lb $1, 0($2)
bne $1, $2, TAG336
addu $1, $1, $1
lh $3, 0($1)
TAG336:
sw $3, 0($3)
sw $3, 0($3)
mthi $3
multu $3, $3
TAG337:
beq $3, $3, TAG338
sra $2, $3, 3
and $4, $3, $3
mthi $4
TAG338:
bltz $4, TAG339
lui $2, 5
mfhi $2
mtlo $4
TAG339:
multu $2, $2
sltu $1, $2, $2
mfhi $3
lui $4, 15
TAG340:
lui $4, 10
div $4, $4
sll $0, $0, 0
or $1, $4, $4
TAG341:

```

```

beq $1, $1, TAG342
divu $1, $1
sw $1, 0($1)
lui $3, 8
TAG342:
mthi $3
sltiu $1, $3, 1
beq $1, $3, TAG343
mflo $2
TAG343:
beq $2, $2, TAG344
mtlo $2
add $2, $2, $2
sw $2, 0($2)
TAG344:
lbu $4, 0($2)
bgtz $4, TAG345
lbu $2, 0($4)
lhu $1, 0($2)
TAG345:
multu $1, $1
addu $2, $1, $1
bgtz $2, TAG346
mflo $2
TAG346:
mult $2, $2
lbu $4, 0($2)
mflo $2
mthi $4
TAG347:
sh $2, 0($2)
beq $2, $2, TAG348
lui $1, 11
sltiu $3, $1, 3
TAG348:
mtlo $3
multu $3, $3
ori $1, $3, 4
sll $3, $1, 10
TAG349:
mtlo $3
lh $4, -4096($3)
mthi $4
ori $3, $4, 1

```

```

TAG350:
beq $3, $3, TAG351
mflo $2
addiu $2, $3, 0
mthi $2
TAG351:
sb $2, -4096($2)
mtlo $2
xori $4, $2, 9
andi $3, $2, 13
TAG352:
mflo $4
lui $2, 15
lui $1, 4
slt $2, $4, $2
TAG353:
div $2, $2
sb $2, 0($2)
mfhi $1
nor $4, $2, $2
TAG354:
bgtz $4, TAG355
or $4, $4, $4
sh $4, 2($4)
andi $1, $4, 4
TAG355:
sw $1, 0($1)
mtlo $1
srl $3, $1, 0
lh $2, 0($1)
TAG356:
mthi $2
sw $2, 0($2)
ori $4, $2, 8
multu $2, $2
TAG357:
bne $4, $4, TAG358
lui $3, 1
sll $0, $0, 0
sll $0, $0, 0
TAG358:
ori $3, $2, 1
sltu $3, $3, $2
sw $3, 0($2)

```

```

mtlo $3
TAG359:
addu $4, $3, $3
mtlo $3
sb $4, 0($3)
lui $1, 9
TAG360:
div $1, $1
beq $1, $1, TAG361
subu $1, $1, $1
sh $1, 0($1)
TAG361:
multu $1, $1
bne $1, $1, TAG362
mfhi $1
multu $1, $1
TAG362:
lw $1, 0($1)
blez $1, TAG363
mflo $1
blez $1, TAG363
TAG363:
mflo $3
lbu $1, 0($1)
lw $2, 0($1)
mtlo $1
TAG364:
beq $2, $2, TAG365
mfhi $3
sh $2, 0($2)
slti $4, $3, 15
TAG365:
add $2, $4, $4
sb $4, 0($4)
multu $4, $2
mfhi $3
TAG366:
mthi $3
mfhi $4
beq $4, $3, TAG367
sh $3, 0($3)
TAG367:
beq $4, $4, TAG368
mflo $2

```



```

mult $4, $2
mthi $2
TAG368:
nor $3, $2, $2
lui $3, 6
mthi $3
multu $3, $2
TAG369:
multu $3, $3
addiu $3, $3, 10
lui $1, 10
mthi $1
TAG370:
addu $1, $1, $1
srlv $2, $1, $1
sll $0, $0, 0
div $2, $2
TAG371:
mfhi $2
xori $4, $2, 1
bltz $2, TAG372
lw $2, 0($2)
TAG372:
sb $2, 0($2)
bgez $2, TAG373
sw $2, 0($2)
mthi $2
TAG373:
beq $2, $2, TAG374
sllv $2, $2, $2
multu $2, $2
lbu $4, 0($2)
TAG374:
mflo $4
subu $2, $4, $4
bne $4, $4, TAG375
multu $2, $2
TAG375:
and $1, $2, $2
lui $3, 4
srav $1, $3, $3
sw $3, 0($2)
TAG376:
subu $3, $1, $1

```

```

ori $1, $1, 1
mtlo $1
beq $1, $1, TAG377
TAG377:
xori $1, $1, 13
mfhi $1
beq $1, $1, TAG378
srl $1, $1, 5
TAG378:
srl $4, $1, 3
mfhi $4
mfhi $1
bltz $1, TAG379
TAG379:
multu $1, $1
bne $1, $1, TAG380
sra $3, $1, 9
lui $1, 0
TAG380:
lhu $2, 0($1)
bgez $1, TAG381
srlv $1, $2, $1
lui $2, 0
TAG381:
multu $2, $2
beq $2, $2, TAG382
addu $4, $2, $2
divu $2, $2
TAG382:
lh $2, 0($4)
lw $2, 0($4)
bne $2, $2, TAG383
sltiu $2, $2, 11
TAG383:
lbu $2, 0($2)
mflo $2
add $2, $2, $2
bltz $2, TAG384
TAG384:
mult $2, $2
lhu $1, 0($2)
bltz $2, TAG385
lb $3, 0($1)
TAG385:

```

```

mthi $3
mfhi $1
srav $2, $1, $3
sll $1, $1, 8
TAG386:
multu $1, $1
lui $1, 2
xori $2, $1, 12
mult $1, $2
TAG387:
sll $0, $0, 0
addiu $4, $2, 1
sll $0, $0, 0
bgez $2, TAG388
TAG388:
sll $0, $0, 0
lui $3, 5
bne $4, $4, TAG389
addu $4, $3, $2
TAG389:
sll $0, $0, 0
mult $3, $4
mfhi $2
lui $2, 5
TAG390:
bne $2, $2, TAG391
lui $3, 8
mfhi $1
beq $2, $2, TAG391
TAG391:
lb $3, 0($1)
lui $3, 11
bgez $3, TAG392
lui $1, 0
TAG392:
multu $1, $1
sb $1, 0($1)
slti $4, $1, 7
lbu $2, 0($4)
TAG393:
blez $2, TAG394
lui $4, 10
nor $2, $4, $2
bgtz $2, TAG394

```

```

TAG394:
sb $2, 0($2)
mult $2, $2
bgtz $2, TAG395
sll $3, $2, 11
TAG395:
sllv $1, $3, $3
lbu $2, 0($1)
beq $1, $1, TAG396
sb $1, 0($1)
TAG396:
sw $2, 0($2)
bltz $2, TAG397
xori $3, $2, 4
mtlo $2
TAG397:
mthi $3
blez $3, TAG398
xori $2, $3, 12
divu $2, $2
TAG398:
mfhi $1
lw $4, 0($2)
sw $4, 0($1)
mtlo $2
TAG399:
mtlo $4
sltu $2, $4, $4
mthi $4
sh $2, 0($2)
TAG400:
lui $1, 0
multu $2, $2
mult $2, $2
sb $1, 0($1)
TAG401:
sw $1, 0($1)
sra $1, $1, 3
blez $1, TAG402
sw $1, 0($1)
TAG402:
sh $1, 0($1)
slti $3, $1, 12
lui $3, 2

```

```

mthi $1
TAG403:
mtlo $3
mult $3, $3
mthi $3
srl $4, $3, 4
TAG404:
srlv $2, $4, $4
lbu $3, -8192($4)
lui $1, 0
beq $1, $2, TAG405
TAG405:
mtlo $1
beq $1, $1, TAG406
sub $3, $1, $1
mflo $4
TAG406:
slti $3, $4, 15
mtlo $4
sb $4, -8192($4)
addiu $3, $3, 8
TAG407:
srlv $2, $3, $3
and $2, $3, $3
mflo $2
sb $2, -8192($2)
TAG408:
addiu $4, $2, 10
or $3, $2, $4
lb $3, -8202($4)
sw $2, -8192($2)
TAG409:
mthi $3
sw $3, 0($3)
mflo $3
lh $3, -8192($3)
TAG410:
mflo $3
sltiu $1, $3, 0
divu $1, $3
xor $4, $3, $3
TAG411:
bne $4, $4, TAG412
mult $4, $4

```

```

lui $2, 5
sltiu $3, $4, 1
TAG412:
xori $3, $3, 12
mfhi $4
mthi $3
mtlo $3
TAG413:
lw $3, 0($4)
blez $3, TAG414
mflo $3
sw $3, 0($3)
TAG414:
bne $3, $3, TAG415
addu $2, $3, $3
blez $3, TAG415
lui $3, 3
TAG415:
nor $3, $3, $3
bgez $3, TAG416
div $3, $3
mult $3, $3
TAG416:
beq $3, $3, TAG417
and $1, $3, $3
sllv $3, $1, $3
sll $3, $3, 11
TAG417:
mfhi $4
bgtz $4, TAG418
slti $2, $4, 15
bne $3, $4, TAG418
TAG418:
mtlo $2
bne $2, $2, TAG419
lbu $1, 0($2)
mult $2, $1
TAG419:
lbu $2, 0($1)
mfhi $2
lui $3, 2
lui $1, 4
TAG420:
bne $1, $1, TAG421

```

```

and $4, $1, $1
mthi $4
lui $1, 6
TAG421:
mthi $1
sll $0, $0, 0
subu $2, $1, $4
slti $1, $1, 6
TAG422:
bne $1, $1, TAG423
mfhi $1
sll $0, $0, 0
sltiu $3, $1, 3
TAG423:
lbu $2, 0($3)
lh $4, 0($2)
mflo $3
beq $2, $3, TAG424
TAG424:
sw $3, 0($3)
bne $3, $3, TAG425
lui $4, 0
mflo $3
TAG425:
lui $4, 15
mthi $4
mtlo $3
bgtz $3, TAG426
TAG426:
divu $4, $4
sra $1, $4, $4
nor $2, $1, $4
mflo $1
TAG427:
sb $1, 0($1)
lui $4, 8
bne $1, $1, TAG428
sra $3, $4, 13
TAG428:
beq $3, $3, TAG429
mthi $3
bgtz $3, TAG429
lw $2, 0($3)
TAG429:

```

```
sll $0, $0, 0
blez $4, TAG430
lui $4, 15
divu $4, $4
TAG430:
addu $3, $4, $4
sll $0, $0, 0
sll $0, $0, 0
mflo $4
TAG431:
sltiu $4, $4, 11
mfhi $3
mflo $2
xori $1, $4, 14
TAG432:
bne $1, $1, TAG433
lui $4, 7
lui $4, 15
lb $1, 0($1)
TAG433:
xor $2, $1, $1
beq $2, $2, TAG434
mtlo $2
sll $1, $2, 9
TAG434:
mthi $1
mthi $1
ori $4, $1, 14
multu $4, $1
TAG435:
subu $1, $4, $4
bne $1, $4, TAG436
lui $3, 0
ori $4, $3, 15
TAG436:
lbu $1, 0($4)
mthi $4
lb $4, 0($4)
div $4, $4
TAG437:
beq $4, $4, TAG438
lb $1, 0($4)
multu $4, $1
bne $1, $1, TAG438
```



```

TAG438:
srav $4, $1, $1
mtlo $1
lbu $2, 0($4)
xori $4, $4, 13
TAG439:
lui $3, 0
beq $4, $4, TAG440
lui $2, 1
lw $1, 0($3)
TAG440:
mthi $1
sb $1, 0($1)
mflo $1
mtlo $1
TAG441:
xori $3, $1, 14
xor $3, $1, $1
bltz $3, TAG442
mult $3, $1
TAG442:
mflo $3
multu $3, $3
mtlo $3
sw $3, 0($3)
TAG443:
lui $2, 4
addi $1, $3, 7
lhu $1, 0($3)
sh $3, 0($1)
TAG444:
mfhi $2
mthi $2
lbu $4, 0($1)
mtlo $4
TAG445:
sb $4, 0($4)
sltiu $3, $4, 14
lui $4, 0
sllv $1, $4, $3
TAG446:
mfhi $1
mtlo $1
mthi $1

```

```

lui $3, 5
TAG447:
mult $3, $3
addu $2, $3, $3
sll $0, $0, 0
mult $2, $2
TAG448:
mthi $2
bltz $2, TAG449
sll $0, $0, 0
sll $0, $0, 0
TAG449:
sll $0, $0, 0
sra $4, $2, $2
sll $0, $0, 0
div $2, $2
TAG450:
beq $4, $4, TAG451
mult $4, $4
nor $4, $4, $4
sw $4, 0($4)
TAG451:
lui $1, 8
mtlo $1
divu $4, $4
sll $0, $0, 0
TAG452:
bgez $1, TAG453
lui $2, 12
mflo $2
mflo $1
TAG453:
sllv $1, $1, $1
sll $0, $0, 0
lui $1, 0
lbu $4, 0($1)
TAG454:
mflo $3
lb $4, 0($3)
bgtz $3, TAG455
mtlo $3
TAG455:
mthi $4
sw $4, 0($4)

```

```

beq $4, $4, TAG456
mfhi $1
TAG456:
beq $1, $1, TAG457
mflo $2
sb $2, 0($2)
beq $1, $2, TAG457
TAG457:
sb $2, 0($2)
blez $2, TAG458
lui $1, 7
mfhi $1
TAG458:
mflo $4
lbu $1, 0($1)
lui $1, 6
lui $4, 13
TAG459:
bgez $4, TAG460
sra $4, $4, 6
lb $2, 0($4)
mthi $4
TAG460:
divu $2, $2
sra $3, $2, 0
sb $2, 0($3)
mtlo $2
TAG461:
lb $4, 0($3)
lui $4, 8
bgez $3, TAG462
multu $4, $4
TAG462:
sll $0, $0, 0
beq $4, $4, TAG463
sll $0, $0, 0
div $4, $2
TAG463:
mtlo $2
bgez $2, TAG464
multu $2, $2
blez $2, TAG464
TAG464:
lb $1, 0($2)

```

```
lui $4, 8
bgez $2, TAG465
divu $4, $4
TAG465:
xori $3, $4, 9
lui $3, 4
sll $0, $0, 0
lui $4, 8
TAG466:
bgtz $4, TAG467
mfhi $4
mthi $4
divu $4, $4
TAG467:
sb $4, 0($4)
lui $3, 2
subu $4, $3, $3
lui $4, 14
TAG468:
mflo $4
bne $4, $4, TAG469
sb $4, 0($4)
lui $4, 13
TAG469:
mult $4, $4
divu $4, $4
mthi $4
ori $4, $4, 6
TAG470:
sll $0, $0, 0
bne $4, $4, TAG471
addiu $4, $4, 4
bltz $4, TAG471
TAG471:
slt $3, $4, $4
sll $0, $0, 0
mfhi $4
lui $4, 14
TAG472:
sll $0, $0, 0
mtlo $4
div $4, $4
sll $0, $0, 0
TAG473:
```

```

bne $4, $4, TAG474
lui $3, 9
sll $0, $0, 0
bgez $3, TAG474
TAG474:
mflo $3
lui $4, 6
sltu $3, $4, $3
mult $3, $4
TAG475:
multu $3, $3
mult $3, $3
ori $3, $3, 3
lui $2, 5
TAG476:
sll $0, $0, 0
beq $2, $2, TAG477
lui $3, 13
beq $3, $2, TAG477
TAG477:
divu $3, $3
bne $3, $3, TAG478
sll $2, $3, 6
slti $4, $3, 5
TAG478:
multu $4, $4
bne $4, $4, TAG479
sb $4, 0($4)
multu $4, $4
TAG479:
lh $4, 0($4)
mfhi $4
slti $3, $4, 1
mult $4, $4
TAG480:
bne $3, $3, TAG481
lui $3, 13
sll $0, $0, 0
beq $3, $3, TAG481
TAG481:
divu $3, $3
sll $0, $0, 0
blez $4, TAG482
addiu $2, $3, 0

```

```

TAG482:
beq $2, $2, TAG483
sll $0, $0, 0
bne $2, $2, TAG483
lui $4, 1
TAG483:
sb $4, 0($4)
add $1, $4, $4
beq $4, $1, TAG484
mthi $1
TAG484:
mthi $1
lw $1, 0($1)
sh $1, -256($1)
lui $1, 3
TAG485:
sll $0, $0, 0
slti $1, $1, 10
lhu $2, 0($1)
mfhi $3
TAG486:
bne $3, $3, TAG487
lbu $1, 0($3)
lui $1, 6
mflo $3
TAG487:
bne $3, $3, TAG488
sb $3, 0($3)
subu $3, $3, $3
mfhi $4
TAG488:
lui $3, 12
mthi $4
mfhi $1
bltz $4, TAG489
TAG489:
mfhi $2
mflo $3
divu $2, $3
mult $1, $1
TAG490:
mthi $3
blez $3, TAG491
divu $3, $3

```

```

addu $1, $3, $3
TAG491:
bne $1, $1, TAG492
mult $1, $1
and $4, $1, $1
lh $2, 0($1)
TAG492:
sb $2, 0($2)
sb $2, 0($2)
beq $2, $2, TAG493
multu $2, $2
TAG493:
mfhi $1
blez $2, TAG494
srav $1, $1, $1
srav $4, $1, $1
TAG494:
mthi $4
lui $2, 15
lui $3, 6
lui $1, 14
TAG495:
sltu $1, $1, $1
srl $1, $1, 8
multu $1, $1
sw $1, 0($1)
TAG496:
lui $4, 10
lb $2, 0($1)
mthi $2
mtlo $1
TAG497:
mthi $2
sltiu $1, $2, 1
mfhi $2
sb $1, 0($1)
TAG498:
sh $2, 0($2)
mult $2, $2
andi $1, $2, 4
bne $2, $2, TAG499
TAG499:
lw $2, 0($1)
slt $1, $2, $1

```

```

mtlo $2
mthi $2
TAG500:
bgez $1, TAG501
mfhi $1
bgtz $1, TAG501
lui $2, 9
TAG501:
xor $2, $2, $2
mflo $2
addiu $1, $2, 8
sll $1, $2, 14
TAG502:
lb $4, 0($1)
addu $3, $4, $1
slt $2, $4, $4
lb $3, 0($3)
TAG503:
lui $4, 15
lui $2, 9
lui $2, 12
sll $0, $0, 0
TAG504:
lui $2, 6
bgtz $2, TAG505
div $2, $2
lh $1, 0($2)
TAG505:
beq $1, $1, TAG506
lw $3, 0($1)
beq $1, $1, TAG506
lh $4, 0($1)
TAG506:
addu $3, $4, $4
bne $3, $4, TAG507
mult $4, $4
divu $3, $4
TAG507:
bgtz $3, TAG508
xori $2, $3, 12
multu $2, $2
beq $2, $3, TAG508
TAG508:
ori $3, $2, 12

```



```

sll $0, $0, 0
bltz $3, TAG509
lui $3, 4
TAG509:
mfhi $4
lui $2, 4
addu $3, $4, $2
beq $3, $3, TAG510
TAG510:
sll $0, $0, 0
sh $3, 0($1)
lhu $1, 0($1)
bne $1, $1, TAG511
TAG511:
sra $3, $1, $1
mthi $1
mtlo $1
lui $4, 1
TAG512:
mflo $1
lui $3, 9
srlv $4, $4, $4
bltz $1, TAG513
TAG513:
sll $0, $0, 0
blez $4, TAG514
or $3, $4, $4
divu $3, $3
TAG514:
sll $0, $0, 0
div $3, $3
mthi $3
blez $3, TAG515
TAG515:
mtlo $3
addiu $1, $3, 4
sll $0, $0, 0
sll $0, $0, 0
TAG516:
blez $3, TAG517
mfhi $1
sltu $2, $1, $1
lui $3, 6
TAG517:

```

```

sll $0, $0, 0
bltz $3, TAG518
sll $0, $0, 0
bne $4, $3, TAG518
TAG518:
slti $1, $4, 9
nor $2, $4, $4
mfhi $2
mthi $2
TAG519:
sll $0, $0, 0
mthi $2
blez $2, TAG520
sll $0, $0, 0
TAG520:
lw $3, 0($1)
mflo $2
bne $2, $1, TAG521
divu $3, $3
TAG521:
mthi $2
mtlo $2
mthi $2
lui $4, 6
TAG522:
bltz $4, TAG523
sll $0, $0, 0
sll $0, $0, 0
mthi $4
TAG523:
mtlo $2
mfhi $2
srl $4, $2, 0
bltz $2, TAG524
TAG524:
lui $1, 0
bltz $4, TAG525
multu $4, $4
lui $2, 15
TAG525:
beq $2, $2, TAG526
lui $4, 11
slt $3, $4, $2
bgtz $4, TAG526

```

```

TAG526:
mthi $3
sb $3, -225($3)
sltiu $2, $3, 14
nor $4, $2, $3
TAG527:
sb $4, 226($4)
mflo $2
lhu $4, 0($2)
mtlo $4
TAG528:
lui $3, 5
mthi $4
sh $3, 0($4)
divu $3, $3
TAG529:
lui $3, 12
bne $3, $3, TAG530
lui $2, 4
beq $3, $2, TAG530
TAG530:
sll $0, $0, 0
sll $2, $2, 3
sll $0, $0, 0
multu $2, $1
TAG531:
srav $3, $1, $1
bgez $3, TAG532
multu $3, $3
lb $3, 0($3)
TAG532:
mfhi $1
mult $3, $3
mfhi $2
lb $2, 0($1)
TAG533:
mfhi $4
lui $3, 2
bne $2, $2, TAG534
mult $3, $2
TAG534:
mthi $3
bltz $3, TAG535
mfhi $2

```

```

bltz $2, TAG535
TAG535:
sll $2, $2, 9
lui $1, 6
and $3, $2, $2
mult $2, $2
TAG536:
or $3, $3, $3
divu $3, $3
nor $1, $3, $3
addiu $4, $1, 0
TAG537:
mult $4, $4
sll $0, $0, 0
mfhi $2
bgtz $4, TAG538
TAG538:
sll $0, $0, 0
lui $1, 5
sra $4, $2, 2
addiu $4, $1, 9
TAG539:
sll $0, $0, 0
sll $0, $0, 0
div $4, $3
subu $2, $4, $3
TAG540:
srlv $1, $2, $2
sll $0, $0, 0
sra $1, $1, 5
bne $1, $1, TAG541
TAG541:
lui $1, 14
mthi $1
srl $3, $1, 0
subu $2, $3, $1
TAG542:
nor $3, $2, $2
lui $1, 13
sw $1, 1($3)
mtlo $3
TAG543:
sll $0, $0, 0
bltz $1, TAG544

```

```

sll $0, $0, 0
mthi $4
TAG544:
andi $1, $4, 14
bne $1, $1, TAG545
mtlo $4
srl $2, $1, 7
TAG545:
bgtz $2, TAG546
lb $1, 0($2)
blez $1, TAG546
mflo $3
TAG546:
srlv $2, $3, $3
addu $3, $3, $2
blez $2, TAG547
sll $0, $0, 0
TAG547:
mult $3, $3
mult $3, $3
sra $3, $3, $3
mfhi $1
TAG548:
lb $2, 0($1)
mflo $1
sll $0, $0, 0
ori $2, $2, 4
TAG549:
lui $4, 13
bgtz $4, TAG550
sb $4, 0($2)
sw $2, 0($2)
TAG550:
beq $4, $4, TAG551
mfhi $2
mtlo $4
multu $2, $4
TAG551:
sb $2, 0($2)
mthi $2
mtlo $2
mflo $4
TAG552:
lui $4, 12

```

```

and $3, $4, $4
addu $4, $3, $3
bgtz $4, TAG553
TAG553:
sll $0, $0, 0
sll $0, $0, 0
mtlo $2
mfhi $1
TAG554:
sb $1, 0($1)
sb $1, 0($1)
subu $3, $1, $1
beq $3, $3, TAG555
TAG555:
lh $3, 0($3)
sh $3, 0($3)
lui $4, 1
sll $0, $0, 0
TAG556:
sll $0, $0, 0
lui $4, 8
addu $2, $4, $4
mflo $1
TAG557:
bne $1, $1, TAG558
divu $1, $1
subu $1, $1, $1
mult $1, $1
TAG558:
mtlo $1
bltz $1, TAG559
mult $1, $1
bgtz $1, TAG559
TAG559:
multu $1, $1
lh $2, 0($1)
mfhi $4
addiu $2, $4, 11
TAG560:
mtlo $2
mflo $2
sb $2, 0($2)
lui $2, 8
TAG561:

```

```

mtlo $2
addiu $4, $2, 4
and $2, $4, $2
mflo $4
TAG562:
lui $2, 8
bne $4, $2, TAG563
mflo $1
sll $0, $0, 0
TAG563:
lui $3, 0
slti $3, $3, 4
multu $3, $1
blez $1, TAG564
TAG564:
sb $3, 0($3)
srl $3, $3, 4
xori $4, $3, 13
mthi $3
TAG565:
srl $2, $4, 9
sb $2, 0($4)
lb $4, 0($4)
lui $2, 5
TAG566:
mflo $4
multu $4, $4
mfhi $3
bne $2, $3, TAG567
TAG567:
sllv $2, $3, $3
multu $2, $3
sw $3, 0($2)
lui $4, 10
TAG568:
mthi $4
lui $2, 2
mflo $2
divu $2, $2
TAG569:
beq $2, $2, TAG570
and $3, $2, $2
srlv $3, $2, $3
nor $4, $3, $2

```

```

TAG570:
mtlo $4
bne $4, $4, TAG571
mfhi $4
lbu $4, 0($4)
TAG571:
mthi $4
addi $2, $4, 7
lui $4, 6
mthi $2
TAG572:
addiu $4, $4, 14
mfhi $3
lui $3, 6
mtlo $4
TAG573:
mthi $3
mtlo $3
xori $3, $3, 1
slt $1, $3, $3
TAG574:
sb $1, 0($1)
lui $2, 4
lui $3, 7
beq $3, $1, TAG575
TAG575:
lui $1, 7
mthi $3
bne $3, $1, TAG576
sllv $2, $3, $3
TAG576:
sll $0, $0, 0
bne $2, $2, TAG577
mfhi $3
addiu $1, $2, 9
TAG577:
sll $4, $1, 10
mtlo $1
sra $2, $1, 0
bne $2, $1, TAG578
TAG578:
mfhi $2
sll $0, $0, 0
mult $2, $2

```



```

mfhi $1
TAG579:
sb $1, 0($1)
bne $1, $1, TAG580
lui $2, 0
slti $1, $2, 6
TAG580:
mfhi $2
bne $1, $2, TAG581
srl $1, $1, 9
bgtz $1, TAG581
TAG581:
lui $2, 3
multu $2, $1
bltz $1, TAG582
mthi $1
TAG582:
sll $0, $0, 0
beq $2, $2, TAG583
sll $0, $0, 0
mfhi $2
TAG583:
nor $1, $2, $2
bltz $2, TAG584
addu $1, $1, $2
lui $2, 10
TAG584:
slt $3, $2, $2
mult $2, $3
lui $1, 11
mtlo $3
TAG585:
divu $1, $1
divu $1, $1
bgtz $1, TAG586
multu $1, $1
TAG586:
mult $1, $1
sll $0, $0, 0
mult $1, $4
blez $1, TAG587
TAG587:
sll $0, $0, 0
sll $0, $0, 0

```

```
srl $1, $4, 9
beq $1, $1, TAG588
TAG588:
mfhi $2
mtlo $1
mtlo $2
beq $1, $1, TAG589
TAG589:
mtlo $2
bne $2, $2, TAG590
sltiu $4, $2, 1
lh $3, 0($4)
TAG590:
sb $3, -256($3)
lui $2, 2
mflo $4
srlv $2, $2, $3
TAG591:
mfhi $4
beq $4, $2, TAG592
sltiu $4, $4, 13
mtlo $2
TAG592:
beq $4, $4, TAG593
sllv $1, $4, $4
blez $1, TAG593
mtlo $4
TAG593:
bltz $1, TAG594
mthi $1
sb $1, 0($1)
mult $1, $1
TAG594:
sltu $2, $1, $1
mthi $2
sh $1, 0($2)
mflo $4
TAG595:
or $1, $4, $4
sb $1, 0($1)
lhu $1, 0($1)
sltiu $2, $1, 3
TAG596:
mthi $2
```

```

lb $1, 0($2)
addu $3, $2, $1
sltu $2, $3, $3
TAG597:
sb $2, 0($2)
mflo $4
xori $2, $4, 11
srlv $2, $2, $2
TAG598:
lui $3, 9
sltu $2, $3, $2
mfhi $2
lb $1, 0($2)
TAG599:
mflo $1
sw $1, 0($1)
bne $1, $1, TAG600
mtlo $1
TAG600:
lui $3, 12
srlv $1, $1, $1
mflo $2
mthi $1
TAG601:
lui $3, 4
mflo $4
beq $3, $3, TAG602
sll $0, $0, 0
TAG602:
lui $3, 0
bltz $4, TAG603
sw $3, 0($3)
lui $2, 14
TAG603:
mfhi $4
div $4, $2
sw $4, 0($4)
sll $0, $0, 0
TAG604:
mfhi $2
mflo $3
mult $2, $3
xori $3, $4, 4
TAG605:

```

```
sw $3, 0($3)
xor $4, $3, $3
sltiu $3, $4, 12
lhu $2, 0($4)
TAG606:
sub $4, $2, $2
mfhi $1
sh $4, 0($2)
sltiu $4, $2, 8
TAG607:
bgtz $4, TAG608
mflo $4
blez $4, TAG608
lui $3, 4
TAG608:
lbu $3, 0($3)
sb $3, 0($3)
bgez $3, TAG609
lb $3, 0($3)
TAG609:
bltz $3, TAG610
mult $3, $3
sh $3, 0($3)
lw $2, 0($3)
TAG610:
blez $2, TAG611
mtlo $2
bne $2, $2, TAG611
slti $3, $2, 8
TAG611:
mflo $4
mfhi $1
slti $4, $3, 13
bne $4, $4, TAG612
TAG612:
multu $4, $4
lbu $4, 0($4)
srl $3, $4, 4
multu $4, $4
TAG613:
mthi $3
and $3, $3, $3
lui $2, 14
blez $3, TAG614
```

```

TAG614:
sllv $2, $2, $2
sll $0, $0, 0
sll $0, $0, 0
mflo $4
TAG615:
lh $3, 0($4)
lh $4, 0($3)
lui $1, 8
bgtz $4, TAG616
TAG616:
mult $1, $1
beq $1, $1, TAG617
mthi $1
lbu $1, 0($1)
TAG617:
bne $1, $1, TAG618
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG618:
multu $4, $4
lui $4, 4
blez $4, TAG619
mfhi $4
TAG619:
mflo $2
lhu $2, 0($4)
sh $4, 0($2)
mthi $2
TAG620:
sb $2, 0($2)
xori $4, $2, 14
beq $4, $2, TAG621
sw $2, 0($2)
TAG621:
lui $2, 6
srlv $2, $4, $4
beq $2, $2, TAG622
mfhi $3
TAG622:
lui $1, 5
bgez $1, TAG623
sll $0, $0, 0

```

```

bne $1, $1, TAG623
TAG623:
lui $4, 10
lui $2, 11
and $2, $4, $2
mthi $2
TAG624:
sra $1, $2, 12
lui $4, 2
mflo $3
srav $4, $4, $2
TAG625:
lui $4, 12
div $4, $4
blez $4, TAG626
sll $0, $0, 0
TAG626:
mtlo $4
lui $1, 9
bltz $1, TAG627
srav $1, $1, $1
TAG627:
divu $1, $1
mtlo $1
sll $0, $0, 0
mfhi $2
TAG628:
sh $2, 0($2)
mfhi $4
beq $4, $4, TAG629
lw $2, 0($2)
TAG629:
lui $2, 0
beq $2, $2, TAG630
mult $2, $2
sw $2, 0($2)
TAG630:
and $1, $2, $2
mflo $1
sllv $4, $1, $1
lui $1, 6
TAG631:
sll $0, $0, 0
blez $1, TAG632

```

```

lui $1, 15
beq $1, $1, TAG632
TAG632:
mflo $3
div $3, $1
sra $1, $3, 13
sw $1, 0($1)
TAG633:
multu $1, $1
lui $3, 0
ori $2, $1, 9
lhu $1, 0($3)
TAG634:
add $2, $1, $1
multu $1, $1
mflo $1
mthi $2
TAG635:
multu $1, $1
sb $1, 0($1)
sw $1, 0($1)
srl $4, $1, 5
TAG636:
sll $4, $4, 14
addiu $1, $4, 5
mtlo $4
bgtz $4, TAG637
TAG637:
sllv $2, $1, $1
mtlo $1
addiu $4, $1, 6
bltz $2, TAG638
TAG638:
srl $2, $4, 7
sh $2, 0($2)
sb $2, 0($4)
beq $2, $2, TAG639
TAG639:
multu $2, $2
lui $4, 9
bgtz $4, TAG640
lui $1, 9
TAG640:
sll $0, $0, 0

```

```

mflo $4
bltz $1, TAG641
sra $1, $4, $4
TAG641:
lhu $1, 0($1)
addi $1, $1, 14
mtlo $1
multu $1, $1
TAG642:
sltu $3, $1, $1
lui $4, 7
lui $2, 2
sltu $1, $1, $2
TAG643:
div $1, $1
mthi $1
bne $1, $1, TAG644
mflo $4
TAG644:
sra $1, $4, 0
sb $1, 0($1)
sb $4, 0($4)
lui $4, 10
TAG645:
div $4, $4
sll $0, $0, 0
bltz $2, TAG646
mult $4, $4
TAG646:
multu $2, $2
addu $2, $2, $2
divu $2, $2
bgez $2, TAG647
TAG647:
mtlo $2
divu $2, $2
lui $1, 1
mthi $2
TAG648:
mflo $4
mult $1, $1
bne $4, $1, TAG649
mtlo $1
TAG649:

```



```

mult $4, $4
bne $4, $4, TAG650
lbu $3, 0($4)
bltz $3, TAG650
TAG650:
lb $3, 0($3)
mflo $4
sb $3, 0($3)
blez $3, TAG651
TAG651:
divu $4, $4
and $3, $4, $4
lb $2, 0($3)
sb $4, 0($2)
TAG652:
mflo $3
divu $3, $3
divu $3, $2
sllv $4, $2, $2
TAG653:
srl $1, $4, 6
lbu $3, 0($4)
sltiu $1, $3, 2
sb $4, 0($4)
TAG654:
bltz $1, TAG655
sra $3, $1, 6
mult $3, $1
addi $2, $3, 9
TAG655:
mthi $2
beq $2, $2, TAG656
sb $2, 0($2)
blez $2, TAG656
TAG656:
srlv $4, $2, $2
mflo $1
lw $4, 0($4)
mult $4, $4
TAG657:
mfhi $4
multu $4, $4
bne $4, $4, TAG658
lhu $3, 0($4)

```

```

TAG658:
mflo $3
xor $3, $3, $3
sltu $3, $3, $3
addiu $4, $3, 2
TAG659:
subu $3, $4, $4
mult $4, $4
mfhi $2
bgtz $4, TAG660
TAG660:
multu $2, $2
lhu $3, 0($2)
slti $4, $3, 1
lb $1, 0($2)
TAG661:
multu $1, $1
slt $2, $1, $1
sb $1, 0($1)
subu $1, $1, $1
TAG662:
mthi $1
lui $4, 7
mflo $1
sll $0, $0, 0
TAG663:
sh $1, 0($1)
xori $4, $1, 0
mfhi $3
beq $3, $4, TAG664
TAG664:
ori $1, $3, 1
lui $2, 7
lui $4, 5
div $3, $1
TAG665:
lui $4, 0
and $1, $4, $4
lw $3, 0($4)
bgtz $4, TAG666
TAG666:
mult $3, $3
bgtz $3, TAG667
addiu $1, $3, 14

```

```

beq $3, $1, TAG667
TAG667:
mtlo $1
beq $1, $1, TAG668
sll $2, $1, 10
sh $2, 0($2)
TAG668:
lui $2, 4
sll $0, $0, 0
bgtz $2, TAG669
ori $3, $2, 8
TAG669:
bgtz $3, TAG670
mtlo $3
bgez $3, TAG670
sub $2, $3, $3
TAG670:
addiu $3, $2, 2
lui $3, 9
sll $0, $0, 0
blez $3, TAG671
TAG671:
lw $1, 0($4)
beq $1, $1, TAG672
sra $2, $4, 4
srl $2, $1, 2
TAG672:
sb $2, 0($2)
bne $2, $2, TAG673
sllv $1, $2, $2
lw $4, 0($2)
TAG673:
mthi $4
lui $2, 3
sll $0, $0, 0
mult $4, $2
TAG674:
sllv $2, $3, $3
andi $3, $3, 2
lui $1, 11
bltz $2, TAG675
TAG675:
mfhi $3
sll $3, $3, 2

```

```

divu $3, $3
beq $1, $3, TAG676
TAG676:
div $3, $3
beq $3, $3, TAG677
divu $3, $3
bne $3, $3, TAG677
TAG677:
lw $4, 0($3)
bne $3, $3, TAG678
ori $4, $3, 1
mflo $3
TAG678:
bgez $3, TAG679
mult $3, $3
multu $3, $3
lw $4, 0($3)
TAG679:
sltu $4, $4, $4
bltz $4, TAG680
lhu $3, 0($4)
beq $4, $3, TAG680
TAG680:
lui $4, 2
lbu $2, 0($3)
bltz $4, TAG681
addiu $2, $2, 10
TAG681:
bne $2, $2, TAG682
mult $2, $2
bltz $2, TAG682
lh $1, 0($2)
TAG682:
mtlo $1
beq $1, $1, TAG683
addu $2, $1, $1
bltz $2, TAG683
TAG683:
mtlo $2
mthi $2
blez $2, TAG684
srl $3, $2, 13
TAG684:
lb $3, 0($3)

```

```

beq $3, $3, TAG685
xori $4, $3, 12
sb $4, 0($3)
TAG685:
lui $3, 8
bgez $3, TAG686
lui $2, 2
div $2, $3
TAG686:
lui $2, 4
sll $0, $0, 0
subu $1, $2, $2
mthi $2
TAG687:
xori $4, $1, 7
div $1, $4
lbu $4, 0($4)
mult $4, $1
TAG688:
mthi $4
srl $2, $4, 6
bne $4, $4, TAG689
addiu $1, $2, 0
TAG689:
beq $1, $1, TAG690
mthi $1
mtlo $1
bne $1, $1, TAG690
TAG690:
mult $1, $1
sub $3, $1, $1
srlv $4, $3, $3
add $4, $4, $1
TAG691:
sb $4, 0($4)
bgtz $4, TAG692
mtlo $4
bgez $4, TAG692
TAG692:
mfhi $1
mtlo $4
bltz $4, TAG693
mthi $4
TAG693:

```

```

mflo $3
mtlo $1
lui $1, 14
mtlo $3
TAG694:
sra $1, $1, 7
lhu $2, -7168($1)
mult $1, $2
addi $1, $2, 10
TAG695:
lbu $1, 0($1)
mfhi $4
slti $3, $1, 11
sltiu $1, $3, 6
TAG696:
beq $1, $1, TAG697
lbu $2, 0($1)
mfhi $1
sltiu $4, $1, 3
TAG697:
blez $4, TAG698
lb $1, 0($4)
lui $1, 6
sllv $2, $1, $4
TAG698:
srav $3, $2, $2
lh $1, 0($3)
lbu $1, 0($3)
slti $1, $2, 12
TAG699:
lui $3, 3
mflo $4
mtlo $4
slt $1, $4, $4
TAG700:
sra $1, $1, 14
srav $1, $1, $1
mflo $1
lhu $4, 0($1)
TAG701:
bne $4, $4, TAG702
lb $2, 0($4)
sb $2, 0($2)
mthi $4

```

```

TAG702:
lui $2, 3
mtlo $2
lui $1, 14
mthi $1
TAG703:
and $3, $1, $1
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG704:
mflo $1
lui $1, 6
multu $2, $1
divu $1, $2
TAG705:
mthi $1
bgtz $1, TAG706
sll $0, $0, 0
lh $4, 0($1)
TAG706:
lh $4, 0($4)
srl $1, $4, 6
multu $4, $4
mfhi $2
TAG707:
mflo $3
mfhi $3
sb $2, 0($3)
sw $3, 0($3)
TAG708:
lh $4, 0($3)
sb $3, 0($3)
multu $3, $3
lui $3, 8
TAG709:
mflo $3
ori $3, $3, 7
mult $3, $3
sra $4, $3, 9
TAG710:
lui $3, 5
sh $3, 0($4)
or $1, $4, $3

```

```

mult $1, $4
TAG711:
mfhi $4
or $4, $1, $4
sll $0, $0, 0
sll $1, $4, 7
TAG712:
bne $1, $1, TAG713
sll $3, $1, 8
mflo $4
mthi $1
TAG713:
sb $4, 0($4)
xori $4, $4, 0
sb $4, 0($4)
lb $3, 0($4)
TAG714:
lw $4, 0($3)
sb $4, 0($4)
xor $2, $3, $3
mult $3, $4
TAG715:
mult $2, $2
mtlo $2
bne $2, $2, TAG716
sltiu $1, $2, 6
TAG716:
lui $4, 3
lui $1, 1
blez $1, TAG717
lui $4, 9
TAG717:
mtlo $4
sltu $4, $4, $4
bltz $4, TAG718
mflo $4
TAG718:
xori $2, $4, 0
srlv $3, $2, $2
bltz $2, TAG719
mthi $4
TAG719:
divu $3, $3
sll $0, $0, 0

```



```

ori $4, $3, 14
mtlo $4
TAG720:
mtlo $4
sll $0, $0, 0
lui $4, 14
mult $4, $4
TAG721:
blez $4, TAG722
divu $4, $4
bne $4, $4, TAG722
sltu $3, $4, $4
TAG722:
bne $3, $3, TAG723
lw $2, 0($3)
lui $3, 4
sltiu $4, $3, 13
TAG723:
addi $1, $4, 9
subu $4, $4, $1
multu $4, $4
lui $3, 5
TAG724:
xor $4, $3, $3
mfhi $2
lbu $4, 0($4)
blez $3, TAG725
TAG725:
lui $2, 13
nor $1, $4, $4
bgtz $2, TAG726
mtlo $1
TAG726:
mflo $4
nor $4, $4, $4
mfhi $2
addu $3, $4, $1
TAG727:
divu $3, $3
lui $2, 6
mflo $4
mthi $2
TAG728:
sll $1, $4, 4

```

```

bgtz $1, TAG729
lui $2, 11
sltu $1, $4, $2
TAG729:
srav $4, $1, $1
lui $3, 5
srl $3, $4, 1
mtlo $1
TAG730:
beq $3, $3, TAG731
lw $3, 0($3)
bgez $3, TAG731
mthi $3
TAG731:
srl $1, $3, 5
sll $1, $1, 7
lui $3, 0
blez $3, TAG732
TAG732:
lui $3, 8
bne $3, $3, TAG733
mflo $2
sll $0, $0, 0
TAG733:
mtlo $2
beq $2, $2, TAG734
srav $4, $2, $2
xori $3, $2, 0
TAG734:
sra $1, $3, 2
lui $3, 11
mthi $3
ori $1, $3, 4
TAG735:
lui $3, 10
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG736:
mtlo $1
mfhi $3
sll $0, $0, 0
mtlo $1
TAG737:

```

```

sll $0, $0, 0
bgtz $3, TAG738
mfhi $3
sra $2, $3, 13
TAG738:
bgez $2, TAG739
andi $3, $2, 6
mfhi $2
lb $4, 0($2)
TAG739:
xori $1, $4, 8
mult $4, $4
bne $1, $1, TAG740
lui $1, 14
TAG740:
sll $0, $0, 0
bne $1, $1, TAG741
mflo $3
addiu $3, $1, 5
TAG741:
bne $3, $3, TAG742
mflo $4
addiu $2, $3, 0
mfhi $2
TAG742:
bne $2, $2, TAG743
mult $2, $2
lbu $3, 0($2)
lui $1, 12
TAG743:
multu $1, $1
sll $0, $0, 0
nor $2, $3, $1
addu $2, $2, $2
TAG744:
sll $0, $0, 0
multu $2, $2
sll $0, $0, 0
sll $0, $0, 0
TAG745:
subu $2, $2, $2
lui $4, 0
mthi $2
sh $2, 0($2)

```

```

TAG746:
or $1, $4, $4
beq $4, $1, TAG747
mult $4, $1
bne $4, $1, TAG747
TAG747:
sh $1, 0($1)
mflo $2
mthi $1
mthi $2
TAG748:
bgtz $2, TAG749
mfhi $4
bne $4, $4, TAG749
slti $4, $4, 14
TAG749:
bgez $4, TAG750
mflo $3
sw $4, 0($4)
subu $2, $4, $4
TAG750:
nop
nop
test_end:
beq $0, $0, test_end
nop

```

#### 输出

```

@00003000: $ 1 <= 0000000a
@00003004: $ 2 <= 0000000d
@00003008: $ 3 <= 00000006
@0000300c: $ 4 <= 00000000
@00003010: *00000000 <= 0000000d
@00003014: *00000004 <= 00000006
@00003018: *00000008 <= 0000000d
@0000301c: *0000000c <= 00000000
@00003020: *00000010 <= 00000000
@00003024: *00000014 <= 00000006
@00003028: *00000018 <= 00000000
@0000302c: *0000001c <= 00000006
@00003030: *00000020 <= 00000000
@00003034: *00000024 <= 0000000a
@00003038: *00000028 <= 0000000d
@0000303c: *0000002c <= 00000000
@00003040: *00000030 <= 0000000d

```

@00003044: \*00000034 <= 00000000  
@00003048: \*00000038 <= 0000000d  
@0000304c: \*0000003c <= 0000000d  
@00003050: \*00000040 <= 00000000  
@00003054: \*00000044 <= 00000006  
@00003058: \*00000048 <= 0000000a  
@0000305c: \*0000004c <= 00000000  
@00003060: \*00000050 <= 0000000a  
@00003064: \*00000054 <= 00000000  
@00003068: \*00000058 <= 00000006  
@0000306c: \*0000005c <= 00000000  
@00003070: \*00000060 <= 0000000d  
@00003074: \*00000064 <= 0000000d  
@00003078: \*00000068 <= 00000006  
@0000307c: \*0000006c <= 00000000  
@00003080: \*00000070 <= 0000000d  
@00003084: \*00000074 <= 00000006  
@00003088: \*00000078 <= 0000000d  
@0000308c: \*0000007c <= 0000000a  
@00003094: \$ 2 <= ffffffff2  
@0000309c: \$ 1 <= 000f0000  
@000030a4: \$ 1 <= 000000c4  
@000030bc: \$ 2 <= 00000000  
@000030c0: \$ 2 <= 0000000d  
@000030c4: \$ 2 <= 00000000  
@000030c8: \$ 3 <= 00000000  
@000030cc: \*00000000 <= 00000000  
@000030d0: \*00000000 <= 00000000  
@000030d4: \$ 2 <= 00030000  
@000030e8: \$ 1 <= 00060000  
@000030ec: \$ 2 <= 00010000  
@000030f0: \$ 4 <= 00000009  
@000030f4: \$ 2 <= fffefff6  
@000030fc: \$ 1 <= 00000000  
@00003100: \*00000000 <= 00000000  
@00003108: \$ 3 <= 00080000  
@00003110: \$ 1 <= 00080000  
@00003114: \$ 4 <= 000a0000  
@00003118: \$ 1 <= 00090000  
@0000311c: \$ 3 <= 000a0009  
@00003124: \$ 1 <= 00000000  
@0000312c: \*00000000 <= 00000000  
@00003134: \$ 3 <= 000f0000  
@00003158: \$ 3 <= 00000000

@00003160: \*00000000 <= 00000000  
@00003168: \$ 3 <= 000b0000  
@00003174: \$ 4 <= 00000000  
@00003178: \*00000000 <= 00000000  
@00003188: \$ 3 <= 00090000  
@0000319c: \$ 1 <= 00000000  
@000031a8: \$ 1 <= 00000000  
@000031ac: \$ 1 <= 00000000  
@000031b0: \*00000000 <= 00000000  
@000031b4: \$ 2 <= 00000000  
@000031c4: \$ 1 <= 00000000  
@000031c8: \*00000000 <= 00000000  
@000031cc: \*00000000 <= 00000000  
@000031d0: \$ 2 <= 000d0000  
@000031d4: \$ 2 <= 00060000  
@000031dc: \$ 3 <= 00000000  
@000031e0: \$ 1 <= 00000000  
@000031ec: \$ 4 <= 00000000  
@000031f4: \$ 3 <= 00000001  
@000031f8: \$ 3 <= 00000000  
@000031fc: \$ 4 <= 00000000  
@00003204: \*00000000 <= 00000000  
@00003214: \$ 3 <= 00000000  
@0000321c: \*00000000 <= 00000000  
@00003220: \$ 4 <= 00000000  
@00003224: \$ 1 <= 00000000  
@00003228: \$ 1 <= 00000000  
@00003230: \$ 2 <= 00000000  
@00003240: \$ 3 <= 00000000  
@00003244: \$ 4 <= 00000000  
@00003248: \$ 2 <= 00000000  
@0000324c: \$ 2 <= 00000001  
@0000325c: \$ 3 <= 00020000  
@00003268: \$ 2 <= 00000002  
@00003274: \$ 4 <= 00000000  
@00003278: \$ 1 <= 00000000  
@00003280: \$ 4 <= 00000000  
@00003284: \$ 3 <= 00000000  
@00003288: \$ 3 <= 00000000  
@00003290: \$ 2 <= 00000000  
@00003290: \$ 2 <= 00000000  
@00003294: \$ 2 <= 00000000  
@00003298: \$ 2 <= 000a0000  
@000032a4: \$ 1 <= 00000064

@000032ac: \$ 3 <= fff60064  
@000032cc: \$ 1 <= 00000000  
@000032e4: \*00000000 <= 00000000  
@000032e8: \$ 3 <= 00000000  
@000032f0: \$ 3 <= 00000000  
@000032f4: \$ 4 <= ffffffff  
@000032f8: \*00000000 <= 00000000  
@000032fc: \$ 3 <= 00000001  
@00003300: \$ 4 <= 00030000  
@00003304: \$ 2 <= 00000000  
@00003308: \$ 3 <= 00000000  
@0000330c: \$ 1 <= 00000000  
@00003310: \$ 3 <= 00000000  
@00003314: \$ 1 <= 00000000  
@0000331c: \$ 3 <= 00000000  
@00003320: \$ 1 <= 00000006  
@00003324: \$ 1 <= 0000000f  
@00003328: \$ 2 <= 00020000  
@0000332c: \$ 2 <= 0000000f  
@00003330: \$ 3 <= 00000000  
@00003334: \$ 3 <= 00000000  
@00003338: \$ 4 <= 00000000  
@00003340: \$ 1 <= 00000000  
@00003348: \$ 3 <= 00000000  
@00003354: \$ 3 <= 00000000  
@00003360: \$ 4 <= 00000000  
@00003364: \$ 2 <= 00000000  
@00003368: \$ 4 <= 000c0000  
@0000336c: \$ 1 <= 000c0000  
@00003380: \$ 4 <= 00180000  
@00003390: \$ 4 <= 00000000  
@00003398: \*00000000 <= 00000000  
@0000339c: \$ 3 <= 00000000  
@000033a0: \$ 3 <= 00070000  
@000033a4: \$ 2 <= 00000000  
@000033a8: \$ 3 <= 00000000  
@000033ac: \$ 2 <= 00000001  
@000033b0: \$ 3 <= 00000000  
@000033b4: \$ 2 <= 00000000  
@000033bc: \*00000000 <= 00000000  
@000033c4: \$ 1 <= 0000000c  
@000033c8: \$ 2 <= 000e0000  
@000033cc: \$ 2 <= 00000000  
@000033d4: \$ 4 <= 00000000

@000033d8: \*00000000 <= 00000000  
@000033e0: \*00000000 <= 00000000  
@000033e4: \$ 2 <= 00000000  
@000033e8: \$ 2 <= 00000000  
@000033f4: \$ 2 <= 00000000  
@000033f8: \*00000000 <= 00000000  
@000033fc: \$ 1 <= 00000000  
@00003400: \$ 3 <= 00000000  
@00003404: \$ 3 <= 00000001  
@00003410: \*00000000 <= 00000100  
@00003418: \$ 2 <= 000b0000  
@00003424: \$ 2 <= 00060000  
@00003430: \$ 1 <= 00000300  
@00003430: \$ 1 <= 00000300  
@00003434: \*00000000 <= 00000100  
@00003440: \$ 1 <= 000b0000  
@0000344c: \$ 2 <= 00000000  
@00003450: \$ 3 <= 00000000  
@00003454: \$ 4 <= 00000000  
@00003460: \*00000000 <= 00000000  
@00003464: \$ 1 <= 00000000  
@00003468: \$ 3 <= 00000000  
@0000346c: \$ 3 <= 00010000  
@0000347c: \$ 2 <= 00000000  
@00003480: \$ 4 <= 00000000  
@00003488: \$ 1 <= 00040000  
@0000348c: \$ 1 <= 00000000  
@00003490: \$ 4 <= 00000000  
@00003494: \*00000000 <= 00000000  
@00003498: \$ 4 <= 00090000  
@000034a0: \$ 2 <= 00020000  
@000034a4: \$ 1 <= 00010000  
@000034a8: \$ 2 <= 00010002  
@000034c4: \$ 3 <= 0009000b  
@000034e4: \$ 3 <= 00040000  
@000034ec: \$ 1 <= 00030000  
@000034f0: \$ 1 <= 00010002  
@000034f8: \$ 3 <= 00010002  
@000034fc: \$ 3 <= 000c0000  
@00003500: \$ 4 <= 00040000  
@00003510: \$ 1 <= 000e0000  
@00003514: \$ 2 <= 00000000  
@0000351c: \$ 1 <= 00000000  
@00003520: \$ 4 <= 00000000



@00003524: \$ 3 <= ffffffff  
@0000352c: \$ 2 <= 00000000  
@00003534: \$ 4 <= 00040000  
@00003538: \$ 1 <= 00000030  
@00003540: \$ 2 <= 0000000d  
@00003544: \$ 2 <= 00000000  
@0000354c: \$ 1 <= 00050000  
@00003564: \$ 1 <= 00000000  
@00003570: \$ 1 <= 00000000  
@00003578: \$ 3 <= 00010000  
@0000357c: \$ 3 <= 00000001  
@00003580: \$ 1 <= 00000000  
@00003584: \$ 3 <= 00000000  
@00003590: \$ 2 <= 00000000  
@00003594: \$ 3 <= 00000000  
@00003598: \*00000000 <= 00000000  
@0000359c: \$ 3 <= 00000000  
@000035a0: \*00000000 <= 00000000  
@000035ac: \*00000000 <= 00000000  
@000035b0: \*00000000 <= 00000000  
@000035b4: \$ 3 <= 00000001  
@000035b8: \$ 1 <= 00000000  
@000035bc: \*00000000 <= 00000100  
@000035c4: \$ 1 <= 000a0000  
@000035c8: \$ 1 <= 00000000  
@000035d0: \*00000000 <= 00000000  
@000035d4: \*00000000 <= 00000000  
@000035d8: \$ 2 <= 00000000  
@000035e4: \$ 1 <= 00000000  
@000035f0: \$ 2 <= 00000001  
@000035f4: \$ 3 <= 00000000  
@000035f8: \$ 3 <= 00000000  
@0000360c: \*00000000 <= 00000000  
@00003610: \$ 4 <= 0000000a  
@00003614: \$ 3 <= 00000001  
@00003618: \$ 1 <= 00000000  
@0000361c: \$ 4 <= 00000000  
@00003620: \$ 3 <= 00000000  
@00003624: \$ 2 <= 00000001  
@00003628: \$ 4 <= 00000004  
@0000362c: \$ 2 <= 00000000  
@00003630: \*00000000 <= 00000000  
@00003634: \$ 1 <= 00000000  
@00003638: \$ 3 <= 00000000

@0000363c: \*00000000 <= 00000000  
@00003640: \*00000000 <= 00000000  
@00003644: \$ 2 <= 00000000  
@0000364c: \$ 1 <= 00000000  
@00003650: \$ 4 <= 00080000  
@00003654: \$ 2 <= 00000000  
@00003660: \$ 1 <= 00090000  
@00003664: \$ 3 <= 00090000  
@0000366c: \$ 1 <= 00000000  
@00003690: \$ 1 <= 00000000  
@0000369c: \$ 1 <= 00000000  
@000036b4: \$ 2 <= 00000001  
@000036bc: \*00000000 <= 00000100  
@000036c4: \$ 4 <= 00000200  
@000036d0: \$ 2 <= 00050000  
@000036d4: \$ 4 <= 000a0000  
@000036dc: \$ 2 <= 00000000  
@000036e0: \*00000000 <= 00000000  
@000036e4: \$ 3 <= 00000000  
@000036ec: \$ 1 <= 00000005  
@000036f0: \$ 4 <= 00000000  
@000036f4: \$ 4 <= 00000009  
@000036fc: \$ 1 <= 00000000  
@00003704: \$ 1 <= 00030000  
@00003718: \$ 3 <= 00000000  
@0000371c: \$ 4 <= 000a0000  
@00003724: \$ 2 <= 000a0000  
@00003728: \$ 3 <= 0a000000  
@00003744: \$ 3 <= 000a0000  
@00003750: \$ 2 <= 0a000000  
@00003750: \$ 2 <= 0a000000  
@00003758: \$ 2 <= 00000001  
@0000375c: \$ 2 <= 00000002  
@00003760: \$ 3 <= 00000011  
@00003768: \$ 4 <= 00000000  
@0000377c: \$ 4 <= 00000000  
@00003780: \$ 3 <= 000c0000  
@00003788: \$ 4 <= 00000000  
@0000378c: \*00000000 <= 00000000  
@00003794: \$ 4 <= 00000000  
@000037a0: \$ 1 <= 00050000  
@000037a4: \$ 3 <= 00000000  
@000037ac: \$ 1 <= 00050000  
@000037b4: \$ 3 <= 00000000

@000037c0: \$ 3 <= 00000000  
@000037cc: \$ 2 <= 00000000  
@000037d0: \$ 1 <= 00000001  
@000037d4: \$ 1 <= 00000000  
@000037e0: \$ 3 <= 0000000e  
@000037e0: \$ 3 <= 0000000e  
@000037ec: \$ 2 <= 00000000  
@000037f0: \$ 4 <= 00070000  
@000037f8: \$ 1 <= fff8ffff  
@00003800: \$ 2 <= 00090000  
@0000380c: \$ 4 <= 000b0000  
@00003810: \$ 1 <= 000b0000  
@00003814: \$ 2 <= 00020000  
@00003824: \$ 3 <= fffdffff  
@00003828: \$ 4 <= 00040001  
@0000382c: \$ 3 <= 00000200  
@00003830: \*00000000 <= 00000000  
@00003834: \$ 3 <= 00000000  
@0000383c: \$ 4 <= 00000000  
@00003848: \$ 4 <= 00000000  
@00003858: \$ 2 <= 00000000  
@00003860: \$ 4 <= 00040000  
@00003860: \$ 4 <= 00040000  
@00003868: \$ 2 <= 000c0000  
@0000386c: \$ 4 <= 00000000  
@00003878: \$ 4 <= 00000000  
@00003884: \$ 2 <= 00000000  
@00003894: \$ 2 <= 0000000e  
@00003898: \$ 1 <= ffffffff1  
@0000389c: \$ 3 <= 00000000  
@000038a0: \$ 1 <= 00000000  
@000038b0: \$ 1 <= 00000000  
@000038b4: \*00000000 <= 00000000  
@000038b8: \$ 4 <= 00000000  
@000038bc: \$ 3 <= 000e0000  
@000038c4: \$ 4 <= 00003800  
@000038cc: \$ 1 <= 000000e0  
@000038d8: \$ 3 <= 00000000  
@000038dc: \$ 2 <= 00000000  
@000038e0: \$ 4 <= 00000000  
@000038e4: \$ 1 <= 00000000  
@000038e8: \*00000000 <= 00000000  
@000038ec: \$ 2 <= 000000e0  
@000038f0: \$ 3 <= 000e0000

@000038f4: \$ 2 <= 00000000  
@00003908: \$ 4 <= 00000000  
@0000390c: \$ 1 <= 00000000  
@00003924: \$ 1 <= 00080000  
@0000392c: \$ 2 <= 00010000  
@00003934: \$ 3 <= 00020000  
@00003938: \$ 4 <= ffff0000  
@00003940: \$ 3 <= 00000000  
@00003954: \$ 2 <= 00000000  
@0000395c: \*00000000 <= 00000000  
@00003960: \$ 3 <= 00000000  
@00003968: \$ 2 <= 00000000  
@00003970: \$ 1 <= 00000001  
@00003974: \$ 4 <= 00040000  
@00003984: \$ 4 <= 00040000  
@0000398c: \$ 3 <= 00000000  
@00003998: \$ 2 <= ffffffff  
@000039a0: \$ 4 <= 00000000  
@000039a0: \$ 4 <= 00000000  
@000039a4: \$ 3 <= 00000000  
@000039ac: \$ 4 <= 00000000  
@000039bc: \$ 1 <= 000a0000  
@000039c0: \$ 1 <= 00000050  
@000039c8: \$ 1 <= 0000000a  
@000039cc: \$ 4 <= 00000000  
@000039d8: \$ 3 <= 00000000  
@000039dc: \$ 1 <= 00010000  
@000039e0: \$ 1 <= 00010002  
@000039e4: \$ 4 <= 00000000  
@000039e8: \$ 4 <= 00000000  
@000039f0: \$ 3 <= 0000000f  
@000039f4: \$ 3 <= 0000000f  
@000039f8: \$ 2 <= 00000000  
@000039fc: \$ 1 <= 0000000f  
@00003a00: \*0000000c <= 0f000000  
@00003a04: \*0000000c <= 0f000000  
@00003a0c: \$ 2 <= 00060000  
@00003a18: \$ 3 <= 00060000  
@00003a20: \$ 1 <= 00000005  
@00003a2c: \$ 3 <= 00000001  
@00003a38: \$ 2 <= 00000002  
@00003a40: \$ 1 <= 000d0000  
@00003a44: \$ 4 <= 00000000  
@00003a4c: \$ 1 <= 000a0000

@00003a50: \$ 3 <= 00000001  
@00003a58: \$ 2 <= 00000000  
@00003a60: \*00000000 <= 00000000  
@00003a68: \$ 2 <= 00000000  
@00003a74: \$ 3 <= 000f0000  
@00003a7c: \$ 3 <= 00000000  
@00003a80: \$ 2 <= 00050000  
@00003a88: \*00000000 <= 00000000  
@00003a8c: \$ 2 <= 00030000  
@00003ab4: \$ 3 <= 00000000  
@00003ab8: \$ 3 <= 00000000  
@00003ac0: \$ 3 <= 00000000  
@00003ac0: \$ 3 <= 00000000  
@00003acc: \$ 3 <= 000f0000  
@00003ad4: \$ 2 <= 00080000  
@00003adc: \$ 1 <= 00000001  
@00003ae0: \$ 3 <= 00000002  
@00003ae4: \$ 3 <= 00000003  
@00003aec: \$ 2 <= 00000003  
@00003af0: \$ 1 <= 00000003  
@00003af4: \$ 3 <= 00000000  
@00003afc: \$ 3 <= 00000001  
@00003b04: \$ 1 <= 00070000  
@00003b08: \*00000000 <= 00000000  
@00003b14: \$ 2 <= 00070000  
@00003b30: \$ 2 <= 000d0000  
@00003b38: \$ 1 <= 00070000  
@00003b40: \$ 3 <= 00003800  
@00003b44: \$ 1 <= 00000000  
@00003b48: \$ 1 <= 00000000  
@00003b50: \*00000000 <= 00000000  
@00003b54: \$ 3 <= 00000000  
@00003b60: \$ 1 <= 00000000  
@00003b64: \$ 3 <= 00000000  
@00003b68: \$ 4 <= 00000000  
@00003b6c: \$ 3 <= 00000000  
@00003b74: \$ 4 <= 00000031  
@00003b84: \$ 4 <= 00000000  
@00003b94: \$ 3 <= 00000000  
@00003b98: \$ 3 <= 00000000  
@00003ba0: \$ 1 <= 00000002  
@00003ba4: \$ 2 <= 00000000  
@00003ba8: \*00000000 <= 00000000  
@00003bb0: \*00000000 <= 00000000

@00003bb8: \$ 4 <= 00000000  
@00003bc0: \$ 1 <= 00000000  
@00003bc4: \$ 4 <= 000e0000  
@00003bd0: \$ 3 <= 01c00000  
@00003bd0: \$ 3 <= 01c00000  
@00003be0: \$ 2 <= 00000000  
@00003be4: \$ 2 <= 00040000  
@00003c10: \$ 1 <= 0000000f  
@00003c14: \$ 4 <= 0000000f  
@00003c18: \*0000000c <= 0f000000  
@00003c1c: \$ 3 <= 0000000f  
@00003c20: \$ 4 <= 00000000  
@00003c24: \$ 2 <= 0000000f  
@00003c28: \$ 3 <= 00000000  
@00003c2c: \$ 4 <= 0000000f  
@00003c30: \$ 2 <= 0000000f  
@00003c34: \$ 1 <= 00000014  
@00003c3c: \$ 2 <= 00000000  
@00003c44: \$ 1 <= 00070000  
@00003c54: \$ 3 <= 00000000  
@00003c58: \$ 3 <= 000f0000  
@00003c5c: \$ 2 <= 00000000  
@00003c60: \$ 2 <= 00000000  
@00003c64: \$ 4 <= 00000014  
@00003c68: \$ 1 <= 000c0000  
@00003c6c: \$ 3 <= 00000014  
@00003c70: \*00000014 <= 00000014  
@00003c74: \$ 2 <= 00000000  
@00003c7c: \$ 3 <= 00000000  
@00003c80: \$ 2 <= 00000003  
@00003c84: \$ 1 <= 00000000  
@00003c88: \$ 1 <= 00000000  
@00003c98: \$ 4 <= 00000000  
@00003ca0: \$ 2 <= 00000000  
@00003ca4: \$ 4 <= 00000000  
@00003ca8: \*00000000 <= 00000000  
@00003cac: \$ 4 <= 00000000  
@00003cb0: \$ 2 <= 00000000  
@00003cb8: \$ 4 <= 00000000  
@00003cc0: \$ 2 <= 00000000  
@00003cc0: \$ 2 <= 00000000  
@00003cc8: \$ 4 <= 00000000  
@00003ccc: \$ 3 <= 00000000  
@00003cd0: \$ 3 <= 0000000b

@00003cd4: \$ 4 <= 00000000  
@00003cdc: \$ 1 <= 00080000  
@00003ce4: \$ 4 <= 00100000  
@00003ce8: \$ 2 <= 00000000  
@00003cf4: \$ 1 <= 00000000  
@00003cfc: \$ 3 <= 00000000  
@00003d00: \$ 3 <= 00000000  
@00003d04: \*00000000 <= 00000000  
@00003d08: \$ 2 <= 00000000  
@00003d14: \$ 1 <= 00010000  
@00003d1c: \$ 4 <= 00000001  
@00003d20: \$ 1 <= 00000000  
@00003d28: \*00000000 <= 00000100  
@00003d30: \$ 2 <= 00000002  
@00003d34: \$ 4 <= 000b0000  
@00003d3c: \$ 1 <= 00002000  
@00003d40: \*00000000 <= 00000100  
@00003d48: \$ 2 <= 00000000  
@00003d50: \$ 2 <= 00000000  
@00003d60: \$ 1 <= 00000000  
@00003d64: \$ 4 <= 00000100  
@00003d68: \$ 3 <= 00090000  
@00003d74: \$ 3 <= 00000000  
@00003d80: \$ 1 <= 00000000  
@00003d88: \$ 1 <= 00000000  
@00003d8c: \$ 2 <= 00000000  
@00003d94: \$ 1 <= 00000000  
@00003d9c: \$ 1 <= 00000000  
@00003da0: \$ 1 <= 00000000  
@00003da4: \$ 4 <= 00000100  
@00003dac: \$ 2 <= 00020000  
@00003dc0: \$ 2 <= 00040000  
@00003dc0: \$ 2 <= 00040000  
@00003dcc: \$ 2 <= 00000200  
@00003de0: \*00000000 <= 00000000  
@00003de8: \$ 4 <= 00000000  
@00003dec: \$ 1 <= 000c0000  
@00003df4: \$ 1 <= 00000000  
@00003df8: \*00000000 <= 00000000  
@00003dfc: \$ 3 <= 00000000  
@00003e00: \$ 4 <= ffffffff  
@00003e08: \$ 1 <= 00000000  
@00003e0c: \*00000000 <= 00000000  
@00003e10: \$ 1 <= 00090000

@00003e14: \$ 4 <= 00000000  
@00003e20: \$ 2 <= 000d0000  
@00003e2c: \$ 3 <= 00000002  
@00003e30: \$ 4 <= 00000000  
@00003e34: \$ 3 <= 00000008  
@00003e3c: \$ 4 <= 0000000d  
@00003e40: \$ 4 <= 000c0000  
@00003e48: \$ 1 <= fff3ffff  
@00003e4c: \$ 1 <= 00000000  
@00003e54: \*00000000 <= 00000000  
@00003e5c: \$ 2 <= 00000000  
@00003e60: \$ 1 <= 00000000  
@00003e68: \$ 4 <= 00000000  
@00003e70: \$ 2 <= 00000008  
@00003e74: \*00000000 <= 00000000  
@00003e7c: \$ 1 <= 00000000  
@00003e88: \*00000000 <= 00000000  
@00003e90: \$ 4 <= 00000000  
@00003e94: \$ 3 <= 00000000  
@00003e9c: \$ 2 <= 000d0000  
@00003ea4: \$ 1 <= 000d0000  
@00003eb0: \$ 1 <= 00000000  
@00003eb8: \$ 3 <= 00000002  
@00003ec0: \*00000000 <= 00020000  
@00003ec4: \$ 1 <= 00000000  
@00003ed0: \$ 4 <= 00000001  
@00003ed4: \$ 2 <= 00000000  
@00003ed8: \$ 3 <= 00000001  
@00003edc: \$ 4 <= 00000000  
@00003ee4: \$ 2 <= 00000000  
@00003ee8: \*00000000 <= 00000000  
@00003ef8: \$ 3 <= 00000000  
@00003f00: \$ 3 <= 00000000  
@00003f04: \*00000000 <= 00000000  
@00003f10: \$ 4 <= 00000000  
@00003f20: \$ 2 <= 00020000  
@00003f28: \$ 4 <= 00040000  
@00003f30: \$ 4 <= fffbffff  
@00003f34: \$ 1 <= 00000000  
@00003f38: \*00000000 <= 00000000  
@00003f44: \$ 1 <= 00000000  
@00003f4c: \$ 3 <= 00000000  
@00003f50: \$ 2 <= 00000000  
@00003f58: \$ 2 <= 00000000



@00003f68: \$ 4 <= 00000001  
@00003f74: \$ 4 <= 00000007  
@00003f78: \*00000004 <= 07000006  
@00003f7c: \$ 2 <= 000b0000  
@00003f84: \$ 1 <= 00000001  
@00003f88: \$ 3 <= fff4ffff  
@00003f8c: \$ 3 <= ffe9fffe  
@00003f94: \$ 2 <= fffffffd3  
@00003f9c: \$ 1 <= 000d0000  
@00003fa0: \$ 1 <= fffbffff  
@00003fa8: \$ 3 <= 00000000  
@00003fac: \$ 3 <= 00000000  
@00003fb4: \$ 1 <= 00070000  
@00003fc0: \$ 2 <= 00000000  
@00003fc4: \$ 1 <= fff8000e  
@00003fcc: \$ 2 <= 00000000  
@00003fd0: \$ 3 <= 00000000  
@00003fd4: \$ 2 <= 00080001  
@00003fd8: \$ 1 <= 00080001  
@00003fdc: \$ 4 <= 000f0000  
@00003fe8: \$ 1 <= 000f0002  
@00003fec: \$ 4 <= 001e0004  
@00003ffc: \$ 3 <= 00000000  
@00004000: \$ 1 <= 00000000  
@00004004: \$ 3 <= 0000000f  
@00004008: \$ 1 <= 0000000f  
@0000400c: \$ 4 <= 000b0000  
@00004010: \$ 1 <= 00f00010  
@00004020: \$ 3 <= 1e000100  
@00004024: \$ 1 <= 000c0000  
@00004028: \$ 1 <= 000f0000  
@00004068: \$ 4 <= 000f0000  
@00004070: \$ 1 <= 000f0002  
@00004078: \$ 3 <= 00007800  
@0000408c: \$ 1 <= 000e0000  
@00004098: \$ 3 <= 000000c4  
@000040a4: \$ 3 <= 00000000  
@000040ac: \$ 4 <= 00000000  
@000040b0: \*00000000 <= 00000000  
@000040b8: \$ 1 <= 000000c4  
@000040c0: \$ 2 <= 00000000  
@000040c4: \$ 1 <= 000f0000  
@000040c8: \$ 3 <= 00000000  
@000040d0: \$ 1 <= 00000000

@000040d0: \$ 1 <= 00000000  
@000040d8: \$ 1 <= 00000000  
@000040f4: \*00000000 <= 00000000  
@000040f8: \$ 2 <= 00000000  
@000040fc: \$ 3 <= 00000000  
@00004104: \*00000000 <= 00000000  
@00004108: \*00000000 <= 00000000  
@0000410c: \$ 1 <= 00040000  
@00004110: \$ 3 <= 00070000  
@00004118: \$ 3 <= 00000000  
@00004120: \*00000000 <= 00000000  
@00004120: \*00000000 <= 00000000  
@00004124: \$ 3 <= 00070000  
@0000412c: \$ 2 <= 00070006  
@00004130: \$ 2 <= 00000000  
@00004138: \*00000000 <= 00000000  
@00004140: \$ 1 <= 00000000  
@00004140: \$ 1 <= 00000000  
@00004144: \$ 2 <= 00000001  
@0000414c: \$ 3 <= 00060000  
@00004154: \$ 2 <= 000c0000  
@00004158: \$ 1 <= 000c0000  
@00004168: \$ 4 <= 00000000  
@0000416c: \$ 2 <= 00000000  
@00004174: \*00000000 <= 00000000  
@00004178: \$ 1 <= 00000000  
@00004184: \$ 1 <= 00000000  
@00004188: \$ 2 <= 00000000  
@0000418c: \$ 1 <= 00000000  
@00004194: \$ 4 <= 00000000  
@00004198: \*00000000 <= 00000000  
@0000419c: \*00000000 <= 00000000  
@000041a8: \$ 4 <= 00000000  
@000041ac: \$ 3 <= 000e0000  
@000041c0: \$ 3 <= 00000002  
@000041c0: \$ 3 <= 00000002  
@000041c4: \*00000000 <= 00020000  
@000041c8: \$ 3 <= 000d0000  
@000041cc: \$ 3 <= 000e0000  
@000041dc: \$ 3 <= 001c0000  
@000041e0: \$ 2 <= 00000000  
@000041e4: \*00000000 <= 00020000  
@000041e8: \$ 2 <= 001c0000  
@000041f8: \$ 1 <= 00000000

@000041fc: \$ 4 <= 00000000  
@00004204: \$ 4 <= 00000001  
@00004208: \*00000000 <= 00020100  
@0000420c: \$ 2 <= 00000001  
@00004214: \$ 4 <= ffffffff  
@00004224: \$ 1 <= 00000002  
@00004230: \*00000000 <= 00020100  
@00004238: \$ 3 <= 00000002  
@0000423c: \$ 2 <= 00000004  
@00004244: \$ 2 <= 00000000  
@00004250: \*00000000 <= 00020000  
@00004254: \$ 2 <= 00000000  
@0000425c: \$ 4 <= 00000000  
@00004270: \$ 1 <= 00000000  
@00004278: \$ 4 <= 00000000  
@00004284: \$ 4 <= 00000000  
@00004288: \$ 4 <= 00000000  
@00004290: \$ 4 <= 00000009  
@00004294: \$ 1 <= 00040000  
@00004298: \$ 1 <= 00040009  
@0000429c: \*00000008 <= 0000090d  
@000042a0: \$ 1 <= 00000000  
@000042a4: \*00000000 <= 00020000  
@000042a8: \$ 1 <= 00000002  
@000042b0: \$ 4 <= 00000008  
@000042b4: \*00000000 <= 00080000  
@000042b8: \*00000008 <= 00000008  
@000042bc: \*00000000 <= 00020000  
@000042c4: \$ 4 <= 00000001  
@000042c8: \$ 4 <= 00000001  
@000042d0: \$ 4 <= 00090000  
@000042e0: \$ 4 <= 00000000  
@000042e4: \*00000000 <= 00000002  
@000042e8: \$ 2 <= 00000002  
@000042f0: \$ 3 <= 00000000  
@000042f4: \*00000000 <= 00020002  
@000042f8: \$ 4 <= 00000001  
@00004300: \$ 4 <= 00000000  
@00004300: \$ 4 <= 00000000  
@00004304: \$ 1 <= 00000003  
@00004308: \$ 4 <= 00000000  
@00004310: \$ 2 <= 00000000  
@00004314: \$ 2 <= 00000000  
@00004318: \$ 4 <= 00000000

@00004328: \$ 2 <= 00000002  
@00004330: \*00000000 <= 00020002  
@00004334: \*00000000 <= 00020002  
@00004338: \$ 3 <= 00000000  
@00004340: \$ 4 <= 00000000  
@00004340: \$ 4 <= 00000000  
@00004350: \$ 4 <= 00000000  
@00004354: \$ 2 <= 00000000  
@00004358: \$ 4 <= 000b0000  
@0000435c: \$ 4 <= 00000000  
@00004360: \$ 4 <= 00020002  
@00004370: \$ 1 <= 00020000  
@00004378: \$ 1 <= 000c0000  
@0000438c: \$ 3 <= 000c000f  
@0000439c: \$ 2 <= 000b0000  
@000043a0: \$ 2 <= 00000000  
@000043a4: \$ 4 <= 00000000  
@000043b4: \$ 4 <= 00000000  
@000043b8: \$ 3 <= 00000000  
@000043bc: \$ 4 <= 00000000  
@000043c0: \*00000000 <= 00020000  
@000043cc: \$ 1 <= 00000000  
@000043d4: \$ 2 <= 00000000  
@000043dc: \$ 3 <= ffffffff  
@000043e4: \$ 4 <= 00000000  
@000043e8: \$ 3 <= 0000000b  
@000043ec: \$ 1 <= 00000000  
@000043f0: \$ 1 <= 000a0000  
@000043f4: \$ 3 <= ffffffff  
@000043fc: \$ 4 <= ffffffff  
@00004404: \$ 4 <= 00000000  
@00004418: \*00000000 <= ffffffff  
@00004420: \$ 4 <= 0000000c  
@00004420: \$ 4 <= 0000000c  
@00004424: \$ 3 <= 00000000  
@00004428: \$ 4 <= 00000000  
@0000442c: \$ 3 <= 00000000  
@00004430: \*00000000 <= 00000000  
@00004434: \$ 3 <= 00000001  
@00004444: \$ 4 <= 00040000  
@00004448: \$ 4 <= fffc0001  
@00004450: \$ 1 <= 00000000  
@00004450: \$ 1 <= 00000000  
@00004454: \$ 1 <= 00000000

@00004458: \$ 3 <= 00000000  
@00004460: \$ 1 <= 00000000  
@00004464: \$ 1 <= 00040000  
@00004468: \$ 4 <= 00000000  
@00004488: \*00000000 <= 00000000  
@00004490: \*00000000 <= 00000000  
@00004490: \*00000000 <= 00000000  
@00004494: \$ 1 <= 00000000  
@0000449c: \$ 3 <= 000c0000  
@000044a0: \$ 1 <= 000c000b  
@000044a4: \$ 4 <= 000c0000  
@000044a8: \$ 4 <= 00000000  
@000044ac: \$ 3 <= 000c000b  
@000044b0: \$ 2 <= 000c0019  
@000044b4: \$ 3 <= 00060000  
@000044b8: \$ 4 <= 00060000  
@000044c8: \$ 4 <= 00050000  
@000044d4: \$ 4 <= 00000024  
@000044d8: \*00000024 <= 00000024  
@000044e0: \$ 2 <= 00060000  
@000044e8: \$ 3 <= 000c0000  
@000044f4: \$ 2 <= 000c0000  
@000044f8: \$ 1 <= 00060000  
@000044fc: \$ 2 <= 000e0000  
@00004500: \$ 1 <= 00000000  
@00004504: \$ 4 <= 00000024  
@00004518: \$ 3 <= 00000000  
@0000451c: \$ 3 <= 000d0000  
@0000452c: \$ 3 <= 001a0000  
@00004530: \$ 1 <= 00030000  
@00004544: \$ 4 <= 001a0000  
@00004548: \$ 1 <= 000d0000  
@0000454c: \$ 2 <= 000d0000  
@00004550: \$ 1 <= 00060000  
@00004554: \$ 3 <= 00000000  
@0000455c: \$ 4 <= 00000000  
@00004568: \$ 1 <= 000b0000  
@00004574: \$ 3 <= 00000000  
@0000457c: \$ 2 <= 00000000  
@00004580: \$ 1 <= 00000000  
@00004588: \$ 1 <= 00000000  
@0000458c: \$ 3 <= 00000000  
@00004590: \*00000000 <= 00000000  
@00004594: \*00000000 <= 00000000

@000045a4: \$ 2 <= 00000000  
@000045b4: \$ 2 <= 00050000  
@000045b8: \$ 2 <= 00000000  
@000045c4: \$ 1 <= 00000000  
@000045c8: \$ 3 <= 00000000  
@000045cc: \$ 4 <= 000f0000  
@000045d0: \$ 4 <= 000a0000  
@000045dc: \$ 1 <= 000a0000  
@000045f4: \$ 1 <= 00000001  
@000045fc: \$ 2 <= 00000001  
@00004610: \$ 4 <= 00000000  
@00004618: \$ 2 <= 00000000  
@0000461c: \$ 1 <= 00000000  
@00004624: \$ 2 <= 00000000  
@0000462c: \$ 2 <= 00000000  
@00004634: \$ 4 <= 00000000  
@00004638: \$ 2 <= 00000000  
@00004640: \*00000000 <= 00000000  
@00004648: \$ 1 <= 000b0000  
@00004658: \$ 1 <= 00000004  
@0000465c: \$ 3 <= 00001000  
@00004664: \$ 4 <= 00000000  
@0000466c: \$ 3 <= 00000001  
@00004674: \$ 2 <= 00001000  
@00004680: \*00000000 <= 00000000  
@00004688: \$ 4 <= 00001009  
@0000468c: \$ 3 <= 00000000  
@00004690: \$ 4 <= 00001000  
@00004694: \$ 2 <= 000f0000  
@00004698: \$ 1 <= 00040000  
@0000469c: \$ 2 <= 00000001  
@000046a4: \*00000000 <= 00000100  
@000046a8: \$ 1 <= 00000000  
@000046ac: \$ 4 <= ffffffff  
@000046b4: \$ 4 <= ffffffff  
@000046b8: \*00000000 <= 0000ffff  
@000046bc: \$ 1 <= 00000004  
@000046c0: \*00000004 <= 00000004  
@000046c8: \$ 3 <= 00000004  
@000046cc: \$ 2 <= 00000004  
@000046d4: \*00000004 <= 00000004  
@000046d8: \$ 4 <= 0000000c  
@000046e4: \$ 3 <= 00010000  
@000046f0: \$ 3 <= 00000005

@000046f4: \$ 3 <= 00000000  
@000046f8: \*00000004 <= 00000000  
@00004700: \$ 4 <= 00000000  
@00004708: \*00000000 <= 0000ff00  
@0000470c: \$ 1 <= 00090000  
@00004718: \$ 1 <= 00000000  
@00004728: \$ 1 <= 00000000  
@00004730: \$ 1 <= 0000ff00  
@00004738: \$ 1 <= 00000000  
@00004740: \$ 3 <= 00000000  
@00004740: \$ 3 <= 00000000  
@00004744: \$ 1 <= 00000000  
@00004748: \$ 2 <= 0000ff00  
@00004754: \$ 3 <= 00000000  
@00004760: \$ 2 <= 00000000  
@00004764: \*00000000 <= 0000ff00  
@0000476c: \$ 3 <= 00000000  
@00004774: \$ 4 <= 00000000  
@0000477c: \*00000000 <= 00000000  
@00004784: \$ 2 <= 00000000  
@00004790: \$ 3 <= ffffffff  
@00004794: \$ 3 <= 00060000  
@000047a4: \$ 3 <= 0006000a  
@000047a8: \$ 1 <= 000a0000  
@000047b0: \$ 1 <= 00140000  
@000047b4: \$ 2 <= 00140000  
@000047c0: \$ 2 <= 00000000  
@000047c4: \$ 4 <= 00000001  
@000047cc: \$ 2 <= 00000000  
@000047d0: \*00000000 <= 00000000  
@000047d8: \*00000000 <= 00000000  
@000047e4: \$ 2 <= 00000000  
@000047f0: \$ 4 <= 00000001  
@000047f4: \$ 2 <= 00000000  
@00004800: \$ 1 <= 00000000  
@00004804: \$ 3 <= 00040000  
@00004808: \$ 1 <= 00040000  
@0000480c: \*00000000 <= 00040000  
@00004810: \$ 3 <= 00000000  
@00004814: \$ 1 <= 00040001  
@00004820: \$ 1 <= 0004000c  
@00004820: \$ 1 <= 00040001  
@00004824: \$ 1 <= 00000000  
@0000482c: \$ 1 <= 00000000

@00004830: \$ 4 <= 00000000  
@00004834: \$ 4 <= 00000000  
@00004838: \$ 1 <= 00000000  
@00004848: \$ 3 <= 00000000  
@0000484c: \$ 1 <= 00000000  
@00004850: \$ 2 <= 00000000  
@00004858: \$ 1 <= 00000000  
@00004868: \$ 4 <= 00000000  
@00004870: \$ 2 <= 00000000  
@00004874: \$ 2 <= 00040000  
@0000487c: \$ 2 <= 00000000  
@00004880: \$ 2 <= 00000000  
@00004884: \$ 2 <= 00000000  
@00004888: \$ 2 <= 00000000  
@00004894: \$ 1 <= 00000000  
@0000489c: \$ 3 <= 00000000  
@000048a4: \$ 1 <= 00000000  
@000048a8: \$ 2 <= 00000000  
@000048ac: \$ 1 <= 00000000  
@000048b4: \$ 1 <= 00020000  
@000048b8: \$ 2 <= 0002000c  
@000048c4: \$ 4 <= 0002000d  
@000048d4: \$ 3 <= 00050000  
@000048dc: \$ 4 <= 0007000c  
@000048e8: \$ 2 <= 00000023  
@000048ec: \$ 2 <= 00050000  
@000048f4: \$ 3 <= 00080000  
@000048f8: \$ 1 <= 00000023  
@00004900: \$ 3 <= 00000000  
@00004900: \$ 3 <= 00000000  
@00004904: \$ 3 <= 000b0000  
@0000490c: \$ 1 <= 00000000  
@00004914: \*00000000 <= 00040000  
@00004918: \$ 4 <= 00000001  
@0000491c: \$ 2 <= 00000000  
@00004924: \$ 4 <= 000a0000  
@00004930: \*00000000 <= 00040000  
@0000493c: \$ 3 <= 00000000  
@00004940: \$ 1 <= 00000000  
@00004944: \$ 2 <= 00000000  
@0000494c: \*00000000 <= 00040000  
@00004950: \*00000000 <= 00000000  
@00004958: \$ 3 <= 00000004  
@00004968: \$ 2 <= 00000008



@00004970: \$ 1 <= 00000000  
@00004974: \$ 4 <= 00000008  
@00004978: \*00000000 <= 00000008  
@00004984: \$ 2 <= 00000000  
@0000498c: \*00000000 <= 00000000  
@00004990: \$ 1 <= 00000000  
@0000499c: \*00000000 <= 00000000  
@000049a0: \*00000000 <= 00000000  
@000049a4: \$ 1 <= 00000000  
@000049ac: \*00000000 <= 00000000  
@000049b0: \*00000000 <= 00000000  
@000049b4: \$ 3 <= 00000001  
@000049b8: \$ 3 <= 00020000  
@000049cc: \$ 4 <= 00002000  
@000049d0: \$ 2 <= 00002000  
@000049d4: \$ 3 <= 00000000  
@000049d8: \$ 1 <= 00000000  
@000049e8: \$ 3 <= 00000000  
@000049f0: \$ 3 <= 00000000  
@000049f8: \*00000000 <= 00000000  
@000049fc: \$ 3 <= 00000008  
@00004a00: \$ 2 <= 00000000  
@00004a04: \$ 2 <= 00000008  
@00004a08: \$ 2 <= 00002000  
@00004a0c: \*00000000 <= 00000000  
@00004a10: \$ 4 <= 0000200a  
@00004a14: \$ 3 <= 0000200a  
@00004a18: \$ 3 <= 00000000  
@00004a1c: \*00000000 <= 00002000  
@00004a24: \*00000000 <= 00000000  
@00004a28: \$ 3 <= 00002000  
@00004a2c: \$ 3 <= 00000000  
@00004a30: \$ 3 <= 00002000  
@00004a34: \$ 1 <= 00000000  
@00004a3c: \$ 4 <= 00000000  
@00004a48: \$ 2 <= 00050000  
@00004a4c: \$ 3 <= 00000001  
@00004a50: \$ 3 <= 0000000d  
@00004a54: \$ 4 <= 00000000  
@00004a60: \$ 3 <= 00000000  
@00004a68: \$ 3 <= 0000000d  
@00004a74: \$ 2 <= 0000001a  
@00004a7c: \$ 3 <= 00030000  
@00004a80: \$ 3 <= fffcffff

@00004a94: \$ 1 <= fffcffff  
@00004aa0: \$ 4 <= 00000009  
@00004aa8: \$ 2 <= 00000001  
@00004ab8: \$ 1 <= 00000000  
@00004ac0: \$ 2 <= 00000000  
@00004ac4: \$ 2 <= 00000000  
@00004ac8: \$ 3 <= 00020000  
@00004acc: \$ 1 <= 00040000  
@00004ad4: \$ 4 <= 00040000  
@00004adc: \$ 1 <= 00060000  
@00004ae8: \$ 2 <= 00020000  
@00004aec: \$ 1 <= 00000000  
@00004af4: \$ 1 <= 00060000  
@00004afc: \$ 3 <= 00000000  
@00004b00: \$ 2 <= 00000000  
@00004b04: \$ 4 <= 00000000  
@00004b08: \$ 3 <= 00000000  
@00004b10: \*00000000 <= 00000000  
@00004b10: \*00000000 <= 00000000  
@00004b18: \$ 4 <= 00000000  
@00004b1c: \$ 3 <= 00000000  
@00004b20: \$ 4 <= 000f0000  
@00004b34: \$ 1 <= 000f0000  
@00004b38: \$ 2 <= fff0ffff  
@00004b3c: \$ 1 <= 00000001  
@00004b40: \*00000000 <= 00000100  
@00004b44: \$ 4 <= 00080000  
@00004b4c: \$ 3 <= 00000040  
@00004b68: \$ 4 <= 000f0000  
@00004b70: \$ 3 <= 001e0000  
@00004b7c: \$ 4 <= 00000001  
@00004b80: \$ 4 <= 00000001  
@00004b84: \$ 3 <= 00000000  
@00004b88: \$ 2 <= 00000001  
@00004b8c: \$ 1 <= 0000000f  
@00004b94: \$ 4 <= 00070000  
@00004b98: \$ 4 <= 000f0000  
@00004b9c: \$ 1 <= 0000000f  
@00004ba0: \$ 2 <= 00000000  
@00004bb8: \$ 4 <= 0000000f  
@00004bc0: \$ 1 <= 00000000  
@00004bc8: \$ 3 <= 00000000  
@00004bd0: \$ 1 <= 0000000f  
@00004bd8: \$ 4 <= 0000000f

@00004be4: \$ 1 <= 0000000f  
@00004bf0: \$ 4 <= 00000000  
@00004bf8: \$ 2 <= 00000000  
@00004bfc: \$ 4 <= 0000000d  
@00004c00: \$ 3 <= 00000000  
@00004c08: \$ 2 <= 00010000  
@00004c14: \*0000000c <= 0f000000  
@00004c18: \$ 1 <= 0000000f  
@00004c20: \$ 3 <= 00000001  
@00004c24: \$ 3 <= 00000000  
@00004c30: \$ 3 <= 00000000  
@00004c3c: \*00000000 <= 00000000  
@00004c40: \$ 2 <= 00040000  
@00004c44: \$ 1 <= 00000007  
@00004c48: \$ 1 <= 00000000  
@00004c4c: \*00000000 <= 00000000  
@00004c50: \$ 2 <= 00000000  
@00004c58: \$ 4 <= 00000000  
@00004c60: \*00000000 <= 00000000  
@00004c64: \$ 3 <= 00000001  
@00004c68: \$ 4 <= 00000000  
@00004c6c: \$ 1 <= 00000000  
@00004c70: \$ 1 <= 00000000  
@00004c7c: \$ 3 <= 00050000  
@00004c84: \$ 2 <= 000a0000  
@00004ca4: \$ 4 <= 000a0000  
@00004cc0: \$ 1 <= 00080000  
@00004cd4: \$ 2 <= 000c0000  
@00004ce0: \$ 1 <= 00080000  
@00004ce8: \$ 1 <= 00000000  
@00004cec: \$ 4 <= 00000000  
@00004cf0: \$ 3 <= 00000001  
@00004cf4: \$ 4 <= 00000000  
@00004d04: \*00000000 <= 00000000  
@00004d0c: \$ 1 <= 00000000  
@00004d14: \$ 2 <= 00000001  
@00004d20: \*00000000 <= 00000100  
@00004d28: \$ 1 <= 00070000  
@00004d2c: \$ 1 <= 00000000  
@00004d30: \$ 4 <= 00000001  
@00004d34: \$ 1 <= 00000000  
@00004d38: \$ 1 <= 00060000  
@00004d3c: \$ 4 <= 000d0000  
@00004d44: \$ 4 <= 00003400

@00004d54: \$ 3 <= 00000001  
@00004d58: \*00000000 <= 00000100  
@00004d60: \$ 4 <= 00000001  
@00004d64: \$ 4 <= 00080000  
@00004d90: \$ 1 <= 00000001  
@00004d94: \$ 4 <= 00080000  
@00004da0: \$ 3 <= 00080009  
@00004da4: \$ 3 <= 00040000  
@00004dac: \$ 4 <= 00080000  
@00004db4: \$ 4 <= 00000000  
@00004dc0: \*00000000 <= 00000100  
@00004dc4: \$ 3 <= 00020000  
@00004dc8: \$ 4 <= 00000000  
@00004dcc: \$ 4 <= 000e0000  
@00004dd0: \$ 4 <= 00000001  
@00004dd8: \*00000000 <= 00000100  
@00004ddc: \$ 4 <= 000d0000  
@00004dec: \$ 4 <= 000d0006  
@00004df8: \$ 4 <= 000d000a  
@00004e00: \$ 3 <= 00000000  
@00004e08: \$ 4 <= 000d0000  
@00004e0c: \$ 4 <= 000e0000  
@00004e24: \$ 3 <= 00090000  
@00004e30: \$ 3 <= 00000001  
@00004e30: \$ 3 <= 00000001  
@00004e34: \$ 4 <= 00060000  
@00004e38: \$ 3 <= 00000000  
@00004e48: \$ 3 <= 00000003  
@00004e4c: \$ 2 <= 00050000  
@00004e58: \$ 3 <= 000d0000  
@00004e68: \$ 2 <= 03400000  
@00004e6c: \$ 4 <= 00000000  
@00004e78: \*00000000 <= 00000100  
@00004e80: \$ 4 <= 00000100  
@00004e84: \$ 4 <= 00000000  
@00004e88: \$ 3 <= 00000001  
@00004e94: \$ 3 <= 000d0000  
@00004eac: \$ 2 <= 000d0000  
@00004ec0: \*00000000 <= 00000100  
@00004ec4: \$ 1 <= 00000000  
@00004ed4: \$ 1 <= 00000100  
@00004ed8: \*00000000 <= 00000100  
@00004edc: \$ 1 <= 00030000  
@00004ee4: \$ 1 <= 00000000

@00004ee8: \$ 2 <= 00000100  
@00004eec: \$ 3 <= 00000000  
@00004ef4: \$ 1 <= 00000000  
@00004ef8: \$ 1 <= 00060000  
@00004efc: \$ 3 <= 00000001  
@00004f04: \*00000000 <= 00000100  
@00004f08: \$ 3 <= 00000000  
@00004f0c: \$ 4 <= 00000000  
@00004f10: \$ 3 <= 000c0000  
@00004f18: \$ 1 <= 00000000  
@00004f20: \$ 2 <= 00000000  
@00004f24: \$ 3 <= 00000001  
@00004f3c: \$ 1 <= 00000002  
@00004f48: \$ 4 <= 00000002  
@00004f4c: \$ 2 <= 00000000  
@00004f50: \*00000000 <= 00000100  
@00004f54: \*00000000 <= 00000100  
@00004f60: \$ 1 <= 00000000  
@00004f68: \$ 1 <= 00000000  
@00004f74: \$ 2 <= 000f0000  
@00004f78: \$ 3 <= 00060000  
@00004f7c: \$ 1 <= 000e0000  
@00004f80: \$ 1 <= 00000000  
@00004f84: \$ 1 <= 00000000  
@00004f8c: \*00000000 <= 00000000  
@00004f90: \$ 4 <= 000a0000  
@00004f94: \$ 2 <= 00000000  
@00004fa4: \$ 1 <= 00000001  
@00004fa8: \$ 2 <= 00000000  
@00004fac: \*00000000 <= 00000100  
@00004fb0: \*00000000 <= 00000000  
@00004fb8: \$ 1 <= 00000000  
@00004fc0: \$ 2 <= 00000000  
@00004fc4: \$ 1 <= 00000000  
@00004fd4: \$ 1 <= 00000000  
@00004fe0: \$ 2 <= 00000000  
@00004fe4: \$ 2 <= 00000000  
@00004fe8: \$ 1 <= 00000008  
@00004fec: \$ 1 <= 00000000  
@00004ff0: \$ 4 <= 00000000  
@00004ff4: \$ 3 <= 00000000  
@00004ff8: \$ 2 <= 00000000  
@00004ffc: \$ 3 <= 00000000  
@00005000: \$ 4 <= 000f0000

@00005004: \$ 2 <= 00090000  
@00005008: \$ 2 <= 000c0000  
@00005010: \$ 2 <= 00060000  
@00005024: \$ 3 <= 00000000  
@00005030: \$ 3 <= 001e0000  
@00005044: \$ 2 <= 001e000c  
@00005050: \$ 3 <= 001e000c  
@0000505c: \$ 3 <= 00040000  
@00005060: \$ 4 <= 000000e1  
@00005064: \$ 2 <= 00040000  
@00005068: \$ 3 <= 000400e1  
@00005074: \*00000000 <= 000000e1  
@00005078: \$ 1 <= 000000e1  
@00005080: \$ 3 <= 00000070  
@0000508c: \$ 4 <= 00010000  
@00005090: \$ 1 <= 000000e1  
@00005094: \$ 3 <= 00090000  
@00005098: \$ 4 <= 00010000  
@000050a8: \$ 3 <= 00010000  
@000050c4: \$ 1 <= 00010004  
@000050d4: \$ 1 <= 00010000  
@000050d8: \$ 2 <= 00000000  
@000050dc: \$ 3 <= 00060000  
@000050f0: \$ 1 <= 00000000  
@000050f0: \$ 1 <= 00000000  
@000050f4: \$ 2 <= fffeffff  
@000050f8: \$ 2 <= 00010000  
@00005110: \$ 3 <= 000000e1  
@00005114: \$ 2 <= 00010000  
@0000512c: \$ 4 <= 00060000  
@00005144: \$ 2 <= 00060000  
@00005148: \$ 4 <= 00060000  
@00005150: \$ 1 <= 00000000  
@0000515c: \$ 2 <= 000f0000  
@00005164: \$ 4 <= 000b0000  
@00005174: \*00000000 <= 000000e1  
@00005178: \$ 2 <= 00000000  
@0000517c: \$ 4 <= fffffff1e  
@00005180: \*00000000 <= 0000001e  
@00005184: \$ 2 <= 00000000  
@00005188: \$ 4 <= 0000001e  
@00005190: \$ 3 <= 00050000  
@00005198: \*0000001c <= 00000006  
@000051a0: \$ 3 <= 000c0000

@000051a8: \$ 2 <= 00040000  
@000051b4: \$ 2 <= 00200000  
@000051c0: \$ 3 <= 00000000  
@000051d0: \$ 1 <= 00000000  
@000051d8: \$ 2 <= 00000000  
@000051dc: \$ 2 <= 0000001e  
@000051e0: \$ 4 <= 00000000  
@000051e4: \$ 3 <= 00020000  
@000051f8: \$ 2 <= 00020000  
@00005200: \$ 2 <= 04000000  
@00005204: \$ 1 <= 00060000  
@00005208: \$ 3 <= 04000000  
@00005210: \$ 3 <= 04000000  
@00005218: \$ 1 <= fbffffff  
@0000521c: \$ 4 <= fbffffff  
@00005228: \$ 2 <= 00100000  
@00005234: \$ 1 <= 00050000  
@00005238: \$ 4 <= 00040000  
@0000523c: \$ 4 <= 00050009  
@0000524c: \$ 2 <= fc050009  
@00005250: \$ 1 <= 007e0280  
@00005258: \$ 1 <= 0003f014  
@00005260: \$ 1 <= 000e0000  
@00005268: \$ 3 <= 000e0000  
@0000526c: \$ 2 <= 00000000  
@00005270: \$ 3 <= ffffffff  
@00005274: \$ 1 <= 000d0000  
@00005278: \*00000000 <= 000d0000  
@00005290: \$ 1 <= 00000008  
@0000529c: \$ 2 <= 00000000  
@000052a4: \$ 1 <= 00000000  
@000052ac: \$ 3 <= 00050009  
@000052b0: \$ 2 <= 00000280  
@000052b4: \$ 3 <= 00050289  
@000052c8: \$ 3 <= 00000281  
@000052cc: \$ 1 <= 00000019  
@000052d0: \$ 2 <= 00000000  
@000052d4: \$ 1 <= 19606d51  
@000052dc: \$ 2 <= 00000004  
@000052e0: \$ 4 <= 000d0000  
@000052e8: \*00000004 <= 00000000  
@000052f4: \$ 2 <= 00000019  
@00005300: \*00000018 <= 00001900  
@0000530c: \$ 4 <= 00000019

@00005310: \$ 4 <= 000c0000  
@00005314: \$ 3 <= 000c0000  
@00005318: \$ 4 <= 00180000  
@0000532c: \$ 1 <= 00000019  
@00005330: \*00000018 <= 00001900  
@00005334: \*00000018 <= 00001900  
@00005338: \$ 3 <= 00000000  
@00005340: \$ 3 <= 00000000  
@00005340: \$ 3 <= 00000000  
@00005344: \*00000000 <= 000d0000  
@00005348: \$ 4 <= 00010000  
@00005354: \$ 4 <= 00080000  
@00005358: \$ 2 <= 00100000  
@0000535c: \$ 1 <= 00000019  
@00005368: \$ 1 <= 00000000  
@00005384: \$ 2 <= 00000000  
@00005388: \$ 4 <= 00000000  
@0000538c: \$ 2 <= 0000000b  
@00005394: \$ 2 <= 0000000b  
@00005398: \*00000008 <= 0b000008  
@0000539c: \$ 2 <= 00080000  
@000053a4: \$ 4 <= 00080004  
@000053a8: \$ 2 <= 00080000  
@000053ac: \$ 4 <= 00080000  
@000053b0: \$ 2 <= 00080000  
@000053b8: \$ 1 <= 00080000  
@000053c0: \$ 3 <= 00000000  
@000053c4: \$ 3 <= 00000001  
@000053d0: \*00000000 <= 000d0100  
@000053d4: \$ 3 <= 00000000  
@000053d8: \$ 4 <= 0000000d  
@000053e0: \$ 2 <= 00000000  
@000053e4: \*0000000c <= 0f000000  
@000053e8: \$ 4 <= 00000000  
@000053ec: \$ 2 <= 00050000  
@000053f0: \$ 4 <= 00080000  
@000053f8: \$ 3 <= 00000040  
@00005400: \$ 2 <= 00000040  
@00005400: \$ 2 <= 00000040  
@00005408: \*00000040 <= 00000040  
@0000540c: \$ 4 <= 000a0000  
@00005414: \$ 2 <= 00020000  
@00005418: \$ 2 <= 00001000  
@00005424: \$ 3 <= 00001000



@00005438: \$ 4 <= 00000000  
@0000543c: \$ 4 <= 00000000  
@00005444: \$ 2 <= 00000007  
@00005448: \$ 4 <= 00060000  
@00005450: \$ 4 <= 0006000e  
@00005454: \$ 3 <= 00000007  
@00005458: \$ 3 <= 00060000  
@00005468: \$ 3 <= 00060001  
@0000546c: \$ 1 <= 00000000  
@00005470: \*00000000 <= 000d0100  
@00005474: \$ 2 <= 00040000  
@00005478: \$ 3 <= 00070000  
@00005480: \$ 1 <= 00070000  
@0000548c: \$ 2 <= 00070000  
@00005498: \$ 3 <= 00070000  
@0000549c: \$ 1 <= 00070009  
@000054a0: \$ 4 <= 1c002400  
@000054a8: \$ 2 <= 00070009  
@000054b0: \$ 2 <= 00070000  
@000054bc: \$ 1 <= 00000031  
@000054c0: \*00000030 <= 0000310d  
@000054c8: \$ 2 <= 00000000  
@000054cc: \$ 1 <= 00000001  
@000054d0: \$ 2 <= 00000031  
@000054d8: \$ 1 <= 00000000  
@000054e0: \$ 2 <= 00030000  
@00005500: \$ 1 <= fffcffff  
@00005508: \$ 1 <= ffffffff  
@0000550c: \$ 2 <= 000a0000  
@00005510: \$ 3 <= 00000000  
@00005518: \$ 1 <= 000b0000  
@00005548: \$ 1 <= 000e0012  
@00005550: \$ 2 <= 00013401  
@00005550: \$ 2 <= 00013401  
@00005568: \$ 4 <= 00000000  
@0000556c: \$ 3 <= 00000100  
@00005570: \*00000000 <= 000d0100  
@00005574: \$ 2 <= 00020000  
@00005578: \$ 4 <= 00013401  
@0000557c: \$ 2 <= 00020000  
@00005580: \$ 4 <= 00013401  
@00005588: \$ 4 <= 00000000  
@00005594: \$ 1 <= 00000000  
@000055a8: \*00000000 <= 000d0100

@000055b0: \$ 2 <= 00000000  
@000055b8: \*00000000 <= 000d0000  
@000055bc: \$ 4 <= 00000000  
@000055c0: \$ 1 <= 00000000  
@000055c4: \*00000000 <= 000d0000  
@000055c8: \$ 1 <= 00000000  
@000055cc: \$ 2 <= 00000001  
@000055d4: \$ 1 <= 00000000  
@000055d8: \$ 3 <= 00000001  
@000055dc: \$ 2 <= 00000000  
@000055e0: \*00000000 <= 000d0000  
@000055e4: \$ 4 <= 00000000  
@000055e8: \$ 2 <= 0000000b  
@000055ec: \$ 2 <= 00000000  
@000055f0: \$ 3 <= 00090000  
@000055f4: \$ 2 <= 00000000  
@000055f8: \$ 2 <= 00000001  
@000055fc: \$ 1 <= 00000000  
@00005600: \$ 1 <= 00000000  
@00005604: \*00000000 <= 00000000  
@00005610: \$ 3 <= 000c0000  
@00005614: \$ 1 <= 00000000  
@00005618: \$ 2 <= 00000000  
@00005620: \$ 3 <= 00040000  
@00005624: \$ 4 <= 00000000  
@00005630: \$ 3 <= 00000000  
@00005638: \*00000000 <= 00000000  
@0000563c: \$ 2 <= 000e0000  
@00005640: \$ 4 <= 00000000  
@00005648: \*00000000 <= 00000000  
@00005650: \$ 2 <= 00000000  
@00005654: \$ 3 <= 00000000  
@0000565c: \$ 3 <= 00000004  
@00005660: \*00000004 <= 00000004  
@00005664: \$ 4 <= 00000000  
@00005668: \$ 3 <= 00000001  
@0000566c: \$ 2 <= 00000000  
@00005670: \$ 4 <= 00000000  
@00005674: \$ 1 <= 00000000  
@00005678: \*00000000 <= 00000000  
@0000567c: \$ 4 <= 00000001  
@00005684: \$ 4 <= 00000000  
@00005690: \$ 3 <= 00000000  
@00005694: \*00000000 <= 00000000

@0000569c: \$ 3 <= 00000000  
@000056a8: \*00000000 <= 00000000  
@000056ac: \$ 2 <= 00000000  
@000056c0: \$ 4 <= 00000000  
@000056c4: \$ 1 <= 00000000  
@000056c8: \$ 4 <= 00000001  
@000056d4: \$ 4 <= 00000000  
@000056d8: \$ 3 <= 00000000  
@000056e4: \$ 3 <= 00000000  
@000056e8: \$ 2 <= 000e0000  
@000056f0: \$ 2 <= 000e0000  
@000056f0: \$ 2 <= 000e0000  
@000056fc: \$ 4 <= 00000000  
@00005700: \$ 3 <= 00000000  
@00005704: \$ 4 <= 00000000  
@00005708: \$ 1 <= 00080000  
@00005734: \$ 4 <= 00040000  
@0000573c: \$ 4 <= 00000000  
@00005740: \$ 2 <= 00000000  
@00005744: \$ 2 <= 00000000  
@00005748: \*00000000 <= 00000000  
@00005750: \*00000000 <= 00000000  
@00005754: \$ 4 <= 0000000e  
@0000575c: \*00000000 <= 00000000  
@00005760: \$ 2 <= 00060000  
@00005764: \$ 2 <= 00000000  
@0000576c: \$ 3 <= 00000000  
@00005770: \$ 1 <= 00050000  
@00005780: \$ 4 <= 000a0000  
@00005784: \$ 2 <= 000b0000  
@00005788: \$ 2 <= 000a0000  
@00005790: \$ 1 <= 000000a0  
@00005794: \$ 4 <= 00020000  
@00005798: \$ 3 <= 00000000  
@0000579c: \$ 4 <= 00020000  
@000057a0: \$ 4 <= 000c0000  
@000057b4: \$ 1 <= 00090000  
@000057bc: \$ 1 <= 00090000  
@000057cc: \$ 2 <= 00000000  
@000057d0: \*00000000 <= 00000000  
@000057d4: \$ 4 <= 00000000  
@000057dc: \$ 2 <= 00000000  
@000057e0: \$ 2 <= 00000000  
@000057f0: \$ 1 <= 00000000

@000057f4: \$ 1 <= 00000000  
@000057f8: \$ 4 <= 00000000  
@000057fc: \$ 1 <= 00060000  
@00005808: \$ 1 <= 000f0000  
@00005810: \$ 3 <= 00000000  
@00005810: \$ 3 <= 00000000  
@00005818: \$ 1 <= 00000000  
@0000581c: \*00000000 <= 00000000  
@00005824: \$ 3 <= 00000000  
@00005828: \$ 2 <= 00000009  
@0000582c: \$ 1 <= 00000000  
@00005830: \$ 2 <= 00000000  
@00005838: \$ 1 <= 00000000  
@00005844: \*00000000 <= 00000000  
@00005848: \*00000000 <= 00000000  
@0000584c: \$ 4 <= 00000000  
@00005850: \$ 4 <= 00000000  
@00005854: \$ 1 <= 00000005  
@00005860: \$ 2 <= 000000a0  
@00005868: \$ 4 <= 0000000b  
@00005870: \$ 2 <= 00000000  
@00005874: \*00000000 <= 00000000  
@00005878: \*00000008 <= 00000008  
@00005884: \$ 4 <= 00090000  
@0000588c: \$ 1 <= 00090000  
@00005894: \$ 4 <= 00000000  
@0000589c: \$ 1 <= 00000000  
@000058a0: \$ 1 <= 00000000  
@000058a4: \$ 1 <= 0000000e  
@000058b0: \$ 3 <= 00000000  
@000058b4: \$ 4 <= 00070000  
@000058b8: \$ 2 <= 00020000  
@000058bc: \$ 1 <= 00000001  
@000058cc: \$ 4 <= 00000001  
@000058d0: \$ 1 <= 00000001  
@000058d4: \*00000000 <= 00000100  
@000058d8: \*00000000 <= 00000100  
@000058dc: \$ 4 <= 000a0000  
@000058f4: \$ 2 <= 00040000  
@00005908: \$ 1 <= 00010000  
@00005910: \$ 4 <= 00000001  
@00005928: \$ 3 <= 00000001  
@00005930: \$ 3 <= 00000001  
@00005934: \$ 4 <= 00000001

@00005938: \*00000000 <= 00000100  
@00005944: \$ 3 <= 00000001  
@00005948: \$ 2 <= 00000001  
@0000594c: \*00000000 <= 00000100  
@00005950: \$ 3 <= 00000001  
@0000595c: \$ 4 <= 00000002  
@00005960: \$ 1 <= 00000000  
@00005964: \$ 3 <= 00000000  
@00005968: \$ 1 <= 00000001  
@0000596c: \*00000000 <= 00020100  
@00005974: \$ 3 <= 00000000  
@0000597c: \$ 2 <= 00000009  
@00005988: \*00000008 <= 00000908  
@00005990: \$ 4 <= 00000000  
@00005994: \$ 1 <= 00000000  
@00005998: \$ 4 <= 00020100  
@000059a0: \$ 4 <= 00000004  
@000059ac: \$ 3 <= 00000004  
@000059b0: \$ 3 <= 00000010  
@000059b4: \$ 3 <= 00000000  
@000059b8: \$ 3 <= 00000000  
@000059bc: \$ 4 <= 00000002  
@000059c0: \$ 3 <= 00000000  
@000059c8: \$ 2 <= 00000000  
@000059d4: \$ 3 <= 00000100  
@000059d8: \$ 4 <= 00000000  
@000059dc: \$ 1 <= 00000000  
@000059e4: \$ 2 <= 00000000  
@000059e8: \*00000000 <= 00020100  
@000059ec: \$ 1 <= 00000000  
@000059f4: \$ 4 <= 00070000  
@000059f8: \$ 1 <= 00000000  
@00005a00: \*00000000 <= 00020000  
@00005a04: \$ 4 <= 00000000  
@00005a08: \$ 3 <= 00000000  
@00005a10: \$ 1 <= 00000001  
@00005a10: \$ 1 <= 00000001  
@00005a14: \$ 2 <= 00070000  
@00005a18: \$ 4 <= 00050000  
@00005a20: \$ 4 <= 00000000  
@00005a24: \$ 1 <= 00000000  
@00005a28: \$ 3 <= 00020000  
@00005a38: \$ 1 <= 0002000e  
@00005a48: \$ 2 <= 08003800

@00005a50: \$ 2 <= 00040000  
@00005a5c: \$ 3 <= 00040008  
@00005a70: \$ 3 <= 00040002  
@00005a74: \$ 3 <= 00090000  
@00005a80: \$ 1 <= 00020000  
@00005a88: \$ 2 <= 00000000  
@00005a90: \*00000000 <= 00020000  
@00005a98: \$ 1 <= 00000000  
@00005a9c: \$ 4 <= 00020000  
@00005aa4: \$ 2 <= 00030000  
@00005ab0: \$ 2 <= 00090000  
@00005ab4: \$ 3 <= 00000000  
@00005ab8: \$ 1 <= 000b0000  
@00005ac0: \$ 3 <= 00000006  
@00005ac4: \$ 3 <= 00000018  
@00005ae0: \$ 4 <= 00001900  
@00005ae8: \$ 4 <= 00000019  
@00005aec: \$ 3 <= 00000001  
@00005b00: \$ 4 <= 00000000  
@00005b08: \$ 3 <= 00000000  
@00005b10: \$ 4 <= 00020000  
@00005b10: \$ 4 <= 00020000  
@00005b14: \$ 2 <= 00000000  
@00005b1c: \$ 2 <= 0000000a  
@00005b2c: \$ 1 <= 00000000  
@00005b38: \$ 2 <= 00000000  
@00005b4c: \$ 3 <= 00000000  
@00005b50: \$ 3 <= 00000000  
@00005b58: \$ 4 <= 0000000c  
@00005b60: \$ 3 <= 00080000  
@00005b68: \$ 2 <= 00020000  
@00005b70: \$ 2 <= 00040000  
@00005b78: \$ 1 <= 00000000  
@00005b80: \$ 4 <= 00000007  
@00005b88: \$ 4 <= 00000000  
@00005b94: \$ 2 <= 00000000  
@00005b9c: \$ 1 <= 00000000  
@00005bb4: \$ 3 <= 00000000  
@00005bb8: \$ 4 <= 00000000  
@00005bbc: \$ 4 <= 00000000  
@00005bc0: \*00000000 <= 00020000  
@00005bd0: \$ 1 <= 00000000  
@00005bd0: \$ 1 <= 00000000  
@00005be0: \$ 3 <= 00000000

@00005be8: \$ 1 <= 000e0000  
@00005bf0: \$ 1 <= 00001c00  
@00005bf4: \$ 2 <= 00000000  
@00005bfc: \$ 1 <= 0000000a  
@00005c00: \$ 1 <= 00000000  
@00005c04: \$ 4 <= 00000000  
@00005c08: \$ 3 <= 00000001  
@00005c0c: \$ 1 <= 00000001  
@00005c14: \$ 2 <= 00000000  
@00005c24: \$ 1 <= 00000000  
@00005c30: \$ 3 <= 00000000  
@00005c34: \$ 1 <= 00000000  
@00005c38: \$ 1 <= 00000000  
@00005c3c: \$ 1 <= 00000001  
@00005c40: \$ 3 <= 00030000  
@00005c44: \$ 4 <= 00000000  
@00005c4c: \$ 1 <= 00000000  
@00005c50: \$ 1 <= 00000000  
@00005c54: \$ 1 <= 00000000  
@00005c58: \$ 1 <= 00000000  
@00005c5c: \$ 4 <= 00000000  
@00005c64: \$ 2 <= 00000000  
@00005c68: \*00000000 <= 00020000  
@00005c70: \$ 2 <= 00030000  
@00005c78: \$ 1 <= 000e0000  
@00005c80: \$ 3 <= 000e0000  
@00005c90: \$ 1 <= 00030000  
@00005c94: \$ 1 <= 00060000  
@00005cb0: \$ 4 <= 00000000  
@00005cb4: \$ 1 <= 00000000  
@00005cbc: \$ 2 <= 00000000  
@00005cc0: \$ 3 <= 00000000  
@00005cc4: \$ 3 <= 00000000  
@00005cc8: \*00000000 <= 00020000  
@00005ccc: \*00000000 <= 00000000  
@00005cd0: \$ 4 <= 00000000  
@00005cd4: \*00000000 <= 00000000  
@00005cdc: \$ 3 <= 00080000  
@00005ce0: \$ 3 <= 00000000  
@00005ce4: \$ 3 <= 00000007  
@00005cec: \$ 4 <= 00000000  
@00005cf0: \$ 3 <= 00050000  
@00005cf4: \*00000000 <= 00000000  
@00005cf8: \$ 1 <= 00050000

@00005d00: \$ 4 <= 00000000  
@00005d04: \$ 4 <= 00050000  
@00005d0c: \$ 1 <= 02800000  
@00005d14: \$ 3 <= 80000000  
@00005d18: \$ 4 <= 00000000  
@00005d20: \*00000000 <= 00000000  
@00005d24: \$ 4 <= 00000000  
@00005d28: \*00000000 <= 00000000  
@00005d2c: \$ 3 <= 00000000  
@00005d30: \$ 4 <= 00000000  
@00005d34: \*00000000 <= 00000000  
@00005d38: \$ 2 <= 00000000  
@00005d4c: \$ 1 <= 00000001  
@00005d50: \$ 4 <= 00030000  
@00005d54: \$ 1 <= 00010000  
@00005d5c: \$ 4 <= 00090000  
@00005d64: \$ 4 <= 00000000  
@00005d6c: \$ 4 <= 00090000  
@00005d70: \$ 2 <= 00090000  
@00005d74: \$ 3 <= 00090000  
@00005d88: \$ 4 <= 0009000e  
@00005d98: \$ 4 <= 000e0000  
@00005dac: \$ 3 <= 00000000  
@00005db4: \$ 2 <= 00000000  
@00005db8: \$ 3 <= 00040000  
@00005dbc: \$ 4 <= 00000000  
@00005dc0: \$ 1 <= 00000009  
@00005dc4: \$ 4 <= ffffffff7  
@00005dcc: \$ 3 <= 00050000  
@00005dd0: \$ 4 <= 00000000  
@00005dd4: \$ 2 <= ffffffffee  
@00005dd8: \$ 4 <= 00000000  
@00005de0: \$ 2 <= 000d0000  
@00005de4: \$ 1 <= ffffffff  
@00005df0: \$ 4 <= ffffffff  
@00005df4: \$ 4 <= 00000000  
@00005df8: \$ 2 <= ffffffffee  
@00005dfc: \$ 3 <= ffffffff  
@00005e04: \$ 2 <= 00060000  
@00005e08: \$ 4 <= 00000001  
@00005e10: \$ 1 <= 00000010  
@00005e18: \$ 2 <= 000b0000  
@00005e20: \$ 4 <= 00000000  
@00005e24: \$ 3 <= 00050000



```

@00005e28: $ 3 <= 00000000
@00005e34: $ 3 <= 00000000
@00005e40: $ 1 <= 00000000
@00005e44: $ 1 <= 00000000
@00005e48: $ 3 <= 00000000
@00005e50: $ 3 <= 00080000
@00005e50: $ 3 <= 00080000
@00005e58: $ 2 <= 00000010
@00005e68: $ 4 <= 00000000
@00005e70: $ 1 <= 00020000
@00005e74: $ 3 <= 000b0000
@00005e7c: $ 1 <= 000b0004
@00005e80: $ 3 <= 000a0000
@00005e94: $ 3 <= 000b0000
@00005ea8: $ 3 <= 000b0000
@00005eb4: $ 3 <= 00000000
@00005ec0: $ 1 <= 00000008
@00005ecc: $ 1 <= 000e0000
@00005ed8: $ 3 <= 00000000
@00005edc: $ 3 <= 000e0005
@00005ee4: $ 4 <= 00000000
@00005ee8: $ 2 <= 000e0005
@00005eec: $ 2 <= 00000000
@00005ef8: $ 3 <= 00000000
@00005efc: $ 1 <= 000c0000
@00005f08: $ 2 <= fff3ffff
@00005f0c: $ 2 <= ffe7fffe
@00005f20: $ 2 <= 00000000
@00005f24: $ 4 <= 00000000
@00005f2c: *00000000 <= 00000000
@00005f30: $ 1 <= 00000000
@00005f40: *00000000 <= 00000000
@00005f44: $ 2 <= 00000000
@00005f54: $ 4 <= 00000000
@00005f5c: $ 4 <= 00000001
@00005f64: $ 3 <= 00000000

```

#### 4. 综合测试

```

ori $1, $0, 8
ori $2, $0, 9
ori $3, $0, 4
ori $4, $0, 7
sw $1, 0($0)
sw $4, 4($0)

```

sw \$4, 8(\$0)  
sw \$3, 12(\$0)  
sw \$3, 16(\$0)  
sw \$1, 20(\$0)  
sw \$2, 24(\$0)  
sw \$1, 28(\$0)  
sw \$1, 32(\$0)  
sw \$2, 36(\$0)  
sw \$2, 40(\$0)  
sw \$1, 44(\$0)  
sw \$4, 48(\$0)  
sw \$1, 52(\$0)  
sw \$1, 56(\$0)  
sw \$1, 60(\$0)  
sw \$3, 64(\$0)  
sw \$3, 68(\$0)  
sw \$3, 72(\$0)  
sw \$3, 76(\$0)  
sw \$3, 80(\$0)  
sw \$2, 84(\$0)  
sw \$2, 88(\$0)  
sw \$2, 92(\$0)  
sw \$4, 96(\$0)  
sw \$2, 100(\$0)  
sw \$3, 104(\$0)  
sw \$4, 108(\$0)  
sw \$1, 112(\$0)  
sw \$2, 116(\$0)  
sw \$3, 120(\$0)  
sw \$1, 124(\$0)  
mtlo \$2  
addiu \$1, \$2, 12  
sb \$1, 0(\$1)  
srl \$3, \$2, 15  
TAG1:  
mflo \$1  
sb \$3, 0(\$1)  
lh \$1, 0(\$3)  
mtlo \$1  
TAG2:  
mtlo \$1  
lui \$3, 1  
mult \$3, \$3  
lui \$3, 14

TAG3:

slt \$3, \$3, \$3  
and \$1, \$3, \$3  
sw \$3, 0(\$1)  
mflo \$4

TAG4:

blez \$4, TAG5  
multu \$4, \$4  
sb \$4, 0(\$4)  
addi \$2, \$4, 11

TAG5:

lui \$1, 9  
bne \$2, \$1, TAG6  
or \$4, \$2, \$2  
beq \$2, \$2, TAG6

TAG6:

lui \$4, 13  
nor \$1, \$4, \$4  
beq \$1, \$4, TAG7  
srlv \$3, \$1, \$4

TAG7:

sll \$0, \$0, 0  
div \$3, \$4  
andi \$3, \$4, 15  
sll \$0, \$0, 0

TAG8:

sltiu \$2, \$4, 15  
bne \$4, \$4, TAG9  
sltiu \$1, \$4, 6  
mtlo \$2

TAG9:

sb \$1, 0(\$1)  
lui \$1, 10  
srl \$3, \$1, 6  
lui \$2, 7

TAG10:

addiu \$2, \$2, 10  
ori \$1, \$2, 3  
sll \$0, \$0, 0  
andi \$2, \$3, 2

TAG11:

mflo \$1  
lui \$3, 10  
addu \$4, \$3, \$1

```
sll $0, $0, 0
TAG12:
mult $4, $4
sll $0, $0, 0
mflo $3
bne $3, $3, TAG13
TAG13:
mthi $3
mflo $4
mult $3, $4
lw $2, 0($3)
TAG14:
lui $4, 13
mult $4, $4
mult $2, $4
bgez $4, TAG15
TAG15:
mflo $3
mult $3, $4
bne $4, $3, TAG16
lui $2, 11
TAG16:
sll $0, $0, 0
mfhi $3
srl $2, $3, 6
sw $2, 0($2)
TAG17:
mult $2, $2
lui $2, 5
mflo $2
sh $2, 0($2)
TAG18:
beq $2, $2, TAG19
lbu $4, 0($2)
bne $4, $2, TAG19
lui $1, 11
TAG19:
beq $1, $1, TAG20
lui $2, 4
mflo $4
blez $1, TAG20
TAG20:
sltiu $1, $4, 3
multu $4, $4
```

or \$1, \$1, \$1  
sll \$2, \$4, 11  
TAG21:  
mflo \$3  
bgtz \$2, TAG22  
mfhi \$2  
slt \$2, \$2, \$3  
TAG22:  
mthi \$2  
mult \$2, \$2  
addu \$1, \$2, \$2  
lui \$3, 8  
TAG23:  
mflo \$2  
xor \$4, \$2, \$2  
nor \$4, \$2, \$3  
bne \$4, \$2, TAG24  
TAG24:  
and \$3, \$4, \$4  
slt \$4, \$4, \$3  
mthi \$3  
mflo \$3  
TAG25:  
mthi \$3  
lui \$1, 10  
subu \$4, \$3, \$1  
subu \$2, \$3, \$1  
TAG26:  
bgtz \$2, TAG27  
xori \$4, \$2, 3  
lui \$2, 0  
sll \$0, \$0, 0  
TAG27:  
sll \$0, \$0, 0  
lui \$2, 15  
mfhi \$4  
blez \$2, TAG28  
TAG28:  
lui \$3, 13  
sra \$3, \$3, 12  
srl \$4, \$3, 6  
bgtz \$3, TAG29  
TAG29:  
lbu \$3, 0(\$4)

lui \$3, 2  
lui \$3, 8  
xori \$3, \$4, 8  
TAG30:  
subu \$3, \$3, \$3  
sltu \$2, \$3, \$3  
bne \$2, \$3, TAG31  
and \$2, \$3, \$2  
TAG31:  
bne \$2, \$2, TAG32  
addiu \$1, \$2, 7  
mtlo \$2  
mtlo \$2  
TAG32:  
lui \$4, 10  
lui \$1, 15  
divu \$1, \$4  
mult \$4, \$1  
TAG33:  
blez \$1, TAG34  
divu \$1, \$1  
bne \$1, \$1, TAG34  
lui \$1, 15  
TAG34:  
xor \$3, \$1, \$1  
sra \$2, \$3, 10  
lui \$1, 4  
lui \$3, 13  
TAG35:  
lui \$3, 6  
sll \$0, \$0, 0  
bne \$3, \$3, TAG36  
div \$1, \$3  
TAG36:  
mult \$1, \$1  
bgez \$1, TAG37  
lui \$2, 7  
lui \$1, 4  
TAG37:  
mtlo \$1  
lui \$4, 2  
divu \$1, \$1  
divu \$4, \$4  
TAG38:

multu \$4, \$4  
lui \$3, 9  
mult \$3, \$3  
mtlo \$4  
TAG39:  
div \$3, \$3  
mflo \$1  
ori \$3, \$3, 5  
mflo \$4  
TAG40:  
mtlo \$4  
beq \$4, \$4, TAG41  
sb \$4, 0(\$4)  
mfhi \$2  
TAG41:  
sll \$0, \$0, 0  
nor \$2, \$2, \$2  
lui \$1, 6  
andi \$1, \$1, 8  
TAG42:  
mflo \$4  
lw \$3, 0(\$1)  
mthi \$1  
bltz \$1, TAG43  
TAG43:  
sltu \$1, \$3, \$3  
bne \$1, \$1, TAG44  
sh \$3, 0(\$1)  
lhu \$4, -256(\$3)  
TAG44:  
sltiu \$3, \$4, 1  
bltz \$3, TAG45  
mfhi \$1  
beq \$3, \$3, TAG45  
TAG45:  
slti \$1, \$1, 0  
mfhi \$3  
lh \$2, 0(\$1)  
mflo \$2  
TAG46:  
bltz \$2, TAG47  
lb \$4, 0(\$2)  
beq \$4, \$4, TAG47  
ori \$4, \$2, 4

TAG47:

bltz \$4, TAG48

mtlo \$4

lui \$4, 14

xori \$3, \$4, 12

TAG48:

mult \$3, \$3

bltz \$3, TAG49

mtlo \$3

sllv \$3, \$3, \$3

TAG49:

xor \$3, \$3, \$3

add \$4, \$3, \$3

or \$4, \$3, \$3

lb \$2, 0(\$3)

TAG50:

lui \$3, 9

mfhi \$3

mflo \$2

div \$3, \$2

TAG51:

div \$2, \$2

bgtz \$2, TAG52

mthi \$2

sh \$2, 0(\$2)

TAG52:

srl \$2, \$2, 1

bne \$2, \$2, TAG53

lui \$3, 8

sll \$0, \$0, 0

TAG53:

sll \$3, \$2, 4

andi \$2, \$2, 9

beq \$2, \$3, TAG54

mfhi \$4

TAG54:

srl \$2, \$4, 5

lw \$1, -28672(\$2)

xor \$3, \$1, \$1

lui \$2, 7

TAG55:

sll \$0, \$0, 0

sll \$0, \$0, 0

sll \$0, \$0, 0



mthi \$2  
TAG56:  
bne \$3, \$3, TAG57  
lui \$1, 4  
mflo \$1  
mthi \$3  
TAG57:  
multu \$1, \$1  
mthi \$1  
lui \$4, 2  
sll \$0, \$0, 0  
TAG58:  
addiu \$3, \$4, 14  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
bltz \$4, TAG59  
TAG59:  
xori \$3, \$4, 2  
mfhi \$2  
mtlo \$4  
bgez \$2, TAG60  
TAG60:  
div \$2, \$2  
mthi \$2  
xor \$2, \$2, \$2  
subu \$4, \$2, \$2  
TAG61:  
blez \$4, TAG62  
andi \$4, \$4, 13  
bgtz \$4, TAG62  
lui \$4, 1  
TAG62:  
lw \$3, 0(\$4)  
sw \$3, -256(\$3)  
sb \$4, 0(\$4)  
sw \$4, -256(\$3)  
TAG63:  
beq \$3, \$3, TAG64  
multu \$3, \$3  
blez \$3, TAG64  
srlv \$2, \$3, \$3  
TAG64:  
lw \$4, 0(\$2)  
lb \$3, 0(\$2)

beq \$2, \$4, TAG65

mult \$3, \$2

TAG65:

bltz \$3, TAG66

lw \$2, 0(\$3)

mult \$3, \$3

lhu \$4, 0(\$2)

TAG66:

bne \$4, \$4, TAG67

srlv \$2, \$4, \$4

lui \$2, 11

div \$2, \$2

TAG67:

div \$2, \$2

mult \$2, \$2

lui \$3, 9

bne \$2, \$2, TAG68

TAG68:

sll \$0, \$0, 0

sra \$2, \$3, 9

sw \$3, 0(\$4)

div \$3, \$2

TAG69:

mtlo \$2

lui \$1, 15

beq \$2, \$1, TAG70

lui \$3, 0

TAG70:

bne \$3, \$3, TAG71

mflo \$3

multu \$3, \$3

sra \$1, \$3, 12

TAG71:

sw \$1, 0(\$1)

lh \$3, 0(\$1)

sb \$3, 0(\$1)

beq \$3, \$1, TAG72

TAG72:

sra \$1, \$3, 13

sh \$1, 0(\$1)

lb \$2, 0(\$3)

add \$1, \$2, \$2

TAG73:

bltz \$1, TAG74

lh \$3, 0(\$1)  
bgtz \$1, TAG74  
lh \$3, 0(\$3)  
TAG74:  
blez \$3, TAG75  
xor \$2, \$3, \$3  
lui \$1, 13  
bgez \$1, TAG75  
TAG75:  
lui \$3, 5  
andi \$2, \$3, 5  
sub \$2, \$1, \$1  
addiu \$4, \$1, 5  
TAG76:  
lb \$1, 0(\$4)  
sll \$2, \$1, 11  
mtlo \$1  
mthi \$2  
TAG77:  
lw \$2, 0(\$2)  
sb \$2, 0(\$2)  
sltiu \$1, \$2, 0  
multu \$2, \$2  
TAG78:  
mtlo \$1  
mfhi \$4  
mtlo \$1  
srl \$4, \$4, 9  
TAG79:  
sb \$4, 0(\$4)  
multu \$4, \$4  
lb \$1, 0(\$4)  
lw \$1, 0(\$1)  
TAG80:  
slt \$3, \$1, \$1  
bgez \$3, TAG81  
lb \$1, 0(\$3)  
sw \$1, 0(\$3)  
TAG81:  
lw \$3, 0(\$1)  
addu \$1, \$3, \$3  
lui \$3, 10  
multu \$3, \$1  
TAG82:

multu \$3, \$3  
lui \$1, 15  
sltiu \$4, \$3, 12  
ori \$2, \$3, 11  
TAG83:  
bltz \$2, TAG84  
divu \$2, \$2  
sll \$3, \$2, 12  
mflo \$4  
TAG84:  
lui \$4, 6  
divu \$4, \$4  
divu \$4, \$4  
bne \$4, \$4, TAG85  
TAG85:  
mthi \$4  
sll \$0, \$0, 0  
lui \$2, 4  
beq \$4, \$4, TAG86  
TAG86:  
sllv \$1, \$2, \$2  
mflo \$1  
lui \$3, 12  
bltz \$1, TAG87  
TAG87:  
sll \$0, \$0, 0  
sltu \$4, \$3, \$3  
sra \$2, \$4, 3  
mfhi \$3  
TAG88:  
bgtz \$3, TAG89  
sll \$0, \$0, 0  
bne \$3, \$3, TAG89  
divu \$3, \$3  
TAG89:  
mtlo \$3  
mfhi \$1  
addiu \$4, \$1, 12  
sll \$0, \$0, 0  
TAG90:  
blez \$4, TAG91  
sllv \$1, \$4, \$4  
mult \$1, \$1  
mflo \$4

TAG91:  
sll \$0, \$0, 0  
mthi \$4  
and \$2, \$4, \$4  
addiu \$1, \$4, 13  
TAG92:  
mtlo \$1  
sll \$0, \$0, 0  
mult \$1, \$1  
mthi \$1  
TAG93:  
addiu \$4, \$1, 1  
sll \$0, \$0, 0  
mtlo \$1  
bltz \$4, TAG94  
TAG94:  
sll \$0, \$0, 0  
bgtz \$4, TAG95  
mult \$4, \$4  
sll \$0, \$0, 0  
TAG95:  
mtlo \$2  
subu \$3, \$2, \$2  
subu \$3, \$2, \$2  
multu \$3, \$3  
TAG96:  
sh \$3, 0(\$3)  
and \$4, \$3, \$3  
mfhi \$4  
mthi \$4  
TAG97:  
sltiu \$3, \$4, 6  
lui \$1, 8  
bgez \$4, TAG98  
mflo \$3  
TAG98:  
nor \$1, \$3, \$3  
lb \$1, 1(\$1)  
sra \$4, \$1, 12  
lui \$1, 11  
TAG99:  
sll \$0, \$0, 0  
bne \$1, \$1, TAG100  
lui \$1, 13

lui \$2, 3  
TAG100:  
sra \$3, \$2, 9  
bgez \$2, TAG101  
mfhi \$2  
slt \$3, \$2, \$3  
TAG101:  
sltu \$3, \$3, \$3  
lui \$3, 12  
mtlo \$3  
mfhi \$3  
TAG102:  
lui \$3, 12  
sll \$0, \$0, 0  
sra \$3, \$3, 15  
div \$3, \$3  
TAG103:  
bgtz \$3, TAG104  
mult \$3, \$3  
lui \$1, 4  
slti \$4, \$3, 2  
TAG104:  
multu \$4, \$4  
sw \$4, 0(\$4)  
lh \$4, 0(\$4)  
beq \$4, \$4, TAG105  
TAG105:  
lb \$1, 0(\$4)  
beq \$4, \$1, TAG106  
mthi \$1  
or \$4, \$4, \$4  
TAG106:  
bgtz \$4, TAG107  
sh \$4, 0(\$4)  
mtlo \$4  
sra \$3, \$4, 2  
TAG107:  
mult \$3, \$3  
beq \$3, \$3, TAG108  
slt \$1, \$3, \$3  
slti \$3, \$3, 0  
TAG108:  
bgtz \$3, TAG109  
mult \$3, \$3

lb \$3, 0(\$3)  
lh \$1, 0(\$3)  
TAG109:  
sh \$1, 0(\$1)  
mthi \$1  
sra \$3, \$1, 7  
mult \$1, \$3  
TAG110:  
mult \$3, \$3  
lui \$4, 9  
mthi \$4  
bgtz \$4, TAG111  
TAG111:  
div \$4, \$4  
and \$4, \$4, \$4  
beq \$4, \$4, TAG112  
sll \$0, \$0, 0  
TAG112:  
mflo \$3  
srlv \$1, \$3, \$3  
addiu \$3, \$3, 15  
sltiu \$3, \$1, 9  
TAG113:  
xori \$3, \$3, 4  
lui \$1, 12  
nor \$3, \$3, \$3  
sh \$3, 6(\$3)  
TAG114:  
lui \$4, 0  
srlv \$3, \$4, \$3  
mfhi \$4  
sb \$4, 0(\$3)  
TAG115:  
mflo \$3  
lbu \$4, 0(\$4)  
mthi \$4  
andi \$4, \$3, 1  
TAG116:  
lui \$1, 10  
sb \$4, 0(\$4)  
or \$3, \$1, \$4  
bne \$4, \$3, TAG117  
TAG117:  
slt \$4, \$3, \$3

mflo \$2  
xori \$2, \$3, 7  
lui \$3, 2  
TAG118:  
or \$3, \$3, \$3  
nor \$3, \$3, \$3  
mfhi \$1  
beq \$3, \$3, TAG119  
TAG119:  
multu \$1, \$1  
sb \$1, 0(\$1)  
sltu \$3, \$1, \$1  
beq \$1, \$3, TAG120  
TAG120:  
mthi \$3  
mfhi \$1  
bne \$1, \$1, TAG121  
lui \$2, 1  
TAG121:  
sll \$0, \$0, 0  
lui \$3, 13  
bgtz \$3, TAG122  
sltiu \$2, \$3, 1  
TAG122:  
mtlo \$2  
mtlo \$2  
sh \$2, 0(\$2)  
sra \$2, \$2, 4  
TAG123:  
multu \$2, \$2  
mfhi \$2  
nor \$4, \$2, \$2  
xori \$1, \$4, 8  
TAG124:  
bgtz \$1, TAG125  
srlv \$2, \$1, \$1  
sw \$2, 9(\$1)  
mthi \$2  
TAG125:  
bgez \$2, TAG126  
subu \$4, \$2, \$2  
blez \$2, TAG126  
mthi \$2  
TAG126:



lhu \$4, 0(\$4)  
subu \$4, \$4, \$4  
lui \$4, 15  
bltz \$4, TAG127  
TAG127:  
sll \$0, \$0, 0  
mthi \$4  
mthi \$4  
sll \$0, \$0, 0  
TAG128:  
bne \$4, \$4, TAG129  
lui \$2, 13  
lui \$3, 4  
sll \$0, \$0, 0  
TAG129:  
mfhi \$2  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sllv \$3, \$1, \$1  
TAG130:  
divu \$3, \$3  
bne \$3, \$3, TAG131  
mthi \$3  
mfhi \$1  
TAG131:  
andi \$3, \$1, 9  
blez \$1, TAG132  
mult \$1, \$3  
beq \$1, \$1, TAG132  
TAG132:  
addi \$1, \$3, 2  
divu \$3, \$1  
bne \$3, \$1, TAG133  
multu \$1, \$3  
TAG133:  
bne \$1, \$1, TAG134  
sra \$4, \$1, 8  
andi \$1, \$4, 5  
lh \$3, 0(\$1)  
TAG134:  
blez \$3, TAG135  
lw \$1, -511(\$3)  
lui \$1, 3  
bne \$1, \$1, TAG135

TAG135:

sll \$0, \$0, 0

and \$3, \$1, \$3

bgez \$3, TAG136

ori \$3, \$1, 4

TAG136:

beq \$3, \$3, TAG137

srlv \$3, \$3, \$3

mthi \$3

srlv \$4, \$3, \$3

TAG137:

mfhi \$4

blez \$4, TAG138

sb \$4, 0(\$4)

andi \$3, \$4, 4

TAG138:

sb \$3, -12288(\$3)

addiu \$2, \$3, 9

beq \$2, \$3, TAG139

addu \$3, \$3, \$3

TAG139:

divu \$3, \$3

mthi \$3

lhu \$4, -24576(\$3)

lb \$4, -256(\$4)

TAG140:

mtlo \$4

lb \$3, 0(\$4)

multu \$3, \$3

lbu \$1, 0(\$3)

TAG141:

sll \$3, \$1, 8

srlv \$2, \$1, \$1

multu \$2, \$2

lui \$2, 7

TAG142:

mthi \$2

andi \$1, \$2, 8

ori \$3, \$1, 11

mtlo \$3

TAG143:

sb \$3, 0(\$3)

lui \$2, 5

mtlo \$2

bgez \$2, TAG144  
TAG144:  
lui \$4, 1  
or \$1, \$2, \$2  
div \$1, \$4  
mtlo \$2  
TAG145:  
srlv \$3, \$1, \$1  
mfhi \$2  
bgez \$3, TAG146  
sh \$1, 0(\$2)  
TAG146:  
mult \$2, \$2  
bne \$2, \$2, TAG147  
mfhi \$4  
beq \$4, \$2, TAG147  
TAG147:  
mflo \$2  
lbu \$2, 0(\$4)  
mtlo \$2  
mfhi \$4  
TAG148:  
sw \$4, 0(\$4)  
mfhi \$2  
beq \$2, \$2, TAG149  
sll \$1, \$4, 7  
TAG149:  
bltz \$1, TAG150  
sltiu \$3, \$1, 1  
lb \$4, 0(\$3)  
srav \$4, \$3, \$4  
TAG150:  
mult \$4, \$4  
sra \$1, \$4, 9  
mfhi \$1  
addu \$4, \$4, \$4  
TAG151:  
multu \$4, \$4  
slti \$4, \$4, 5  
sb \$4, 0(\$4)  
sltiu \$2, \$4, 10  
TAG152:  
sb \$2, 0(\$2)  
andi \$4, \$2, 5

lbu \$4, 0(\$2)  
lui \$2, 9  
TAG153:  
lui \$4, 12  
sll \$0, \$0, 0  
mthi \$4  
xori \$3, \$4, 7  
TAG154:  
beq \$3, \$3, TAG155  
div \$3, \$3  
mult \$3, \$3  
addu \$3, \$3, \$3  
TAG155:  
srlv \$3, \$3, \$3  
sll \$1, \$3, 10  
mthi \$3  
mfhi \$4  
TAG156:  
sll \$0, \$0, 0  
sllv \$1, \$3, \$3  
bne \$1, \$3, TAG157  
divu \$4, \$3  
TAG157:  
lui \$4, 0  
sw \$4, 0(\$4)  
nor \$1, \$4, \$4  
mtlo \$1  
TAG158:  
sw \$1, 1(\$1)  
bne \$1, \$1, TAG159  
addiu \$4, \$1, 9  
bne \$1, \$1, TAG159  
TAG159:  
andi \$1, \$4, 0  
sh \$4, 0(\$1)  
sra \$1, \$1, 7  
mfhi \$2  
TAG160:  
bne \$2, \$2, TAG161  
mtlo \$2  
bne \$2, \$2, TAG161  
mult \$2, \$2  
TAG161:  
addi \$2, \$2, 10

sh \$2, 0(\$2)  
lui \$4, 3  
mtlo \$2  
TAG162:  
mthi \$4  
ori \$4, \$4, 5  
mfhi \$3  
mflo \$4  
TAG163:  
lhu \$1, 0(\$4)  
div \$1, \$4  
sltu \$4, \$4, \$4  
lh \$3, 0(\$4)  
TAG164:  
srlv \$4, \$3, \$3  
lb \$2, 0(\$3)  
bne \$4, \$2, TAG165  
lui \$2, 11  
TAG165:  
addu \$3, \$2, \$2  
sll \$0, \$0, 0  
mtlo \$3  
bne \$2, \$3, TAG166  
TAG166:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
ori \$2, \$3, 7  
TAG167:  
mfhi \$1  
mfhi \$3  
lui \$4, 13  
blez \$2, TAG168  
TAG168:  
lui \$1, 14  
div \$1, \$1  
bne \$4, \$4, TAG169  
sra \$3, \$1, 11  
TAG169:  
beq \$3, \$3, TAG170  
mflo \$1  
lui \$1, 13  
mfhi \$4  
TAG170:

lui \$1, 7  
slti \$4, \$1, 7  
bne \$4, \$4, TAG171  
addiu \$1, \$4, 9  
TAG171:  
lbu \$1, 0(\$1)  
xori \$2, \$1, 4  
mult \$1, \$2  
lui \$2, 0  
TAG172:  
mult \$2, \$2  
bgtz \$2, TAG173  
sb \$2, 0(\$2)  
beq \$2, \$2, TAG173  
TAG173:  
lui \$3, 13  
mflo \$1  
sll \$0, \$0, 0  
mfhi \$2  
TAG174:  
lh \$2, 0(\$2)  
bne \$2, \$2, TAG175  
mthi \$2  
lh \$4, 0(\$2)  
TAG175:  
bne \$4, \$4, TAG176  
mfhi \$2  
lui \$2, 7  
addi \$3, \$4, 6  
TAG176:  
beq \$3, \$3, TAG177  
xor \$3, \$3, \$3  
lbu \$1, 0(\$3)  
beq \$3, \$3, TAG177  
TAG177:  
multu \$1, \$1  
sltu \$2, \$1, \$1  
mflo \$3  
mthi \$1  
TAG178:  
mtlo \$3  
xor \$2, \$3, \$3  
addiu \$1, \$2, 8  
lbu \$3, 0(\$2)

TAG179:

sll \$4, \$3, 0

lbu \$2, 0(\$4)

lui \$2, 4

mult \$2, \$4

TAG180:

mthi \$2

mtlo \$2

mthi \$2

lui \$1, 4

TAG181:

subu \$1, \$1, \$1

bne \$1, \$1, TAG182

mult \$1, \$1

bne \$1, \$1, TAG182

TAG182:

sra \$4, \$1, 11

mthi \$4

lw \$2, 0(\$4)

lw \$3, 0(\$4)

TAG183:

andi \$2, \$3, 9

blez \$3, TAG184

lui \$3, 3

sw \$3, 0(\$3)

TAG184:

addu \$3, \$3, \$3

mtlo \$3

slti \$4, \$3, 11

mtlo \$3

TAG185:

mtlo \$4

lui \$1, 12

lb \$3, 0(\$4)

lhu \$4, 0(\$3)

TAG186:

bgez \$4, TAG187

mult \$4, \$4

sb \$4, 0(\$4)

lbu \$2, 0(\$4)

TAG187:

mfhi \$2

or \$4, \$2, \$2

nor \$2, \$2, \$2

multu \$4, \$2  
TAG188:  
divu \$2, \$2  
and \$3, \$2, \$2  
subu \$4, \$2, \$3  
addu \$3, \$3, \$2  
TAG189:  
bgez \$3, TAG190  
mfhi \$2  
lh \$3, 0(\$2)  
srlv \$1, \$3, \$3  
TAG190:  
sw \$1, 0(\$1)  
beq \$1, \$1, TAG191  
lui \$4, 0  
lui \$2, 14  
TAG191:  
lui \$3, 13  
sh \$2, 0(\$2)  
beq \$3, \$3, TAG192  
sw \$2, 0(\$2)  
TAG192:  
bne \$3, \$3, TAG193  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
mthi \$3  
TAG193:  
div \$3, \$3  
mthi \$3  
addiu \$2, \$3, 0  
bne \$2, \$3, TAG194  
TAG194:  
lui \$2, 7  
mtlo \$2  
lui \$2, 5  
mflo \$3  
TAG195:  
sll \$0, \$0, 0  
beq \$3, \$3, TAG196  
sll \$0, \$0, 0  
slt \$4, \$3, \$3  
TAG196:  
mult \$4, \$4  
beq \$4, \$4, TAG197



mthi \$4  
mfhi \$4  
TAG197:  
mflo \$4  
slt \$4, \$4, \$4  
lb \$1, 0(\$4)  
lhu \$1, 0(\$4)  
TAG198:  
lbu \$1, 0(\$1)  
mflo \$4  
lbu \$1, 0(\$4)  
mult \$1, \$1  
TAG199:  
srl \$2, \$1, 6  
blez \$1, TAG200  
mult \$1, \$2  
add \$2, \$1, \$1  
TAG200:  
mult \$2, \$2  
bne \$2, \$2, TAG201  
sh \$2, 0(\$2)  
add \$1, \$2, \$2  
TAG201:  
lw \$3, 0(\$1)  
beq \$1, \$3, TAG202  
multu \$1, \$3  
bgtz \$1, TAG202  
TAG202:  
addi \$2, \$3, 10  
mthi \$3  
lhu \$2, 0(\$2)  
beq \$2, \$3, TAG203  
TAG203:  
slti \$3, \$2, 0  
mthi \$2  
mfhi \$4  
addu \$2, \$3, \$2  
TAG204:  
multu \$2, \$2  
sll \$1, \$2, 14  
sb \$1, 0(\$2)  
sll \$0, \$0, 0  
TAG205:  
mult \$3, \$3

srlv \$1, \$3, \$3  
add \$1, \$1, \$3  
sh \$1, 0(\$3)  
TAG206:  
mthi \$1  
sll \$1, \$1, 9  
bgtz \$1, TAG207  
lw \$4, 0(\$1)  
TAG207:  
mflo \$2  
lui \$4, 12  
bgez \$4, TAG208  
lui \$1, 3  
TAG208:  
multu \$1, \$1  
divu \$1, \$1  
sll \$0, \$0, 0  
mthi \$4  
TAG209:  
lui \$4, 6  
beq \$4, \$4, TAG210  
divu \$4, \$4  
divu \$4, \$4  
TAG210:  
bne \$4, \$4, TAG211  
sll \$0, \$0, 0  
beq \$4, \$4, TAG211  
lui \$2, 2  
TAG211:  
bne \$2, \$2, TAG212  
andi \$2, \$2, 12  
mthi \$2  
srl \$1, \$2, 5  
TAG212:  
lui \$4, 1  
sll \$0, \$0, 0  
bne \$2, \$2, TAG213  
sll \$0, \$0, 0  
TAG213:  
lbu \$2, 0(\$2)  
lui \$4, 5  
lui \$3, 9  
lui \$4, 7  
TAG214:

```
blez $4, TAG215
div $4, $4
ori $3, $4, 0
addiu $1, $4, 12
TAG215:
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG216:
sll $0, $0, 0
sll $0, $0, 0
lui $3, 2
bltz $3, TAG217
TAG217:
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
sll $0, $0, 0
TAG218:
mflo $3
srl $1, $3, 15
lb $1, 0($1)
mfhi $3
TAG219:
ori $1, $3, 0
bne $1, $3, TAG220
addu $4, $3, $3
lh $2, 0($4)
TAG220:
lbu $2, 0($2)
lui $2, 4
mthi $2
sll $0, $0, 0
TAG221:
mthi $4
addu $2, $4, $4
mtlo $2
sb $4, 0($2)
TAG222:
sh $2, 0($2)
lbu $4, 0($2)
mult $4, $2
mflo $1
```

TAG223:

lh \$1, 0(\$1)

lhu \$2, 0(\$1)

sub \$4, \$2, \$1

multu \$2, \$2

TAG224:

blez \$4, TAG225

addiu \$4, \$4, 8

lui \$3, 1

srlv \$2, \$4, \$4

TAG225:

sltiu \$1, \$2, 11

sll \$1, \$2, 4

mtlo \$2

mfhi \$1

TAG226:

multu \$1, \$1

multu \$1, \$1

mtlo \$1

bltz \$1, TAG227

TAG227:

multu \$1, \$1

mtlo \$1

mult \$1, \$1

mult \$1, \$1

TAG228:

mtlo \$1

mtlo \$1

bgtz \$1, TAG229

sub \$4, \$1, \$1

TAG229:

mthi \$4

mfhi \$3

bgez \$4, TAG230

sra \$3, \$3, 10

TAG230:

andi \$2, \$3, 1

lh \$3, 0(\$3)

lhu \$2, 0(\$2)

srlv \$2, \$3, \$2

TAG231:

mthi \$2

bgez \$2, TAG232

lhu \$1, 0(\$2)

mfhi \$2  
TAG232:  
sb \$2, 0(\$2)  
xori \$1, \$2, 8  
beq \$1, \$1, TAG233  
lhu \$2, 0(\$1)  
TAG233:  
lui \$4, 3  
lui \$4, 15  
sb \$4, 0(\$2)  
mflo \$3  
TAG234:  
xori \$1, \$3, 6  
lui \$3, 14  
bltz \$3, TAG235  
sll \$0, \$0, 0  
TAG235:  
mtlo \$4  
sll \$0, \$0, 0  
xori \$3, \$4, 7  
lui \$1, 4  
TAG236:  
bltz \$1, TAG237  
lui \$4, 3  
sll \$0, \$0, 0  
divu \$1, \$4  
TAG237:  
subu \$2, \$4, \$4  
addiu \$3, \$4, 3  
divu \$2, \$3  
and \$3, \$4, \$4  
TAG238:  
or \$3, \$3, \$3  
sll \$2, \$3, 11  
mfhi \$4  
mflo \$4  
TAG239:  
bltz \$4, TAG240  
sh \$4, 0(\$4)  
bgez \$4, TAG240  
multu \$4, \$4  
TAG240:  
lw \$1, 0(\$4)  
mtlo \$4

lui \$2, 1  
mflo \$2  
TAG241:  
andi \$3, \$2, 1  
mthi \$2  
mfhi \$2  
bne \$2, \$3, TAG242  
TAG242:  
mflo \$4  
andi \$2, \$2, 3  
lui \$1, 3  
sllv \$2, \$2, \$2  
TAG243:  
sb \$2, 0(\$2)  
lhu \$2, 0(\$2)  
sh \$2, 0(\$2)  
beq \$2, \$2, TAG244  
TAG244:  
lui \$2, 14  
sll \$0, \$0, 0  
mfhi \$2  
beq \$2, \$2, TAG245  
TAG245:  
mthi \$2  
bne \$2, \$2, TAG246  
addiu \$3, \$2, 2  
multu \$3, \$2  
TAG246:  
mflo \$1  
sh \$1, 0(\$3)  
lh \$2, 0(\$1)  
srl \$1, \$3, 11  
TAG247:  
lui \$2, 3  
addi \$2, \$1, 8  
xori \$4, \$2, 8  
lui \$1, 14  
TAG248:  
lui \$4, 2  
mthi \$1  
bltz \$1, TAG249  
sll \$0, \$0, 0  
TAG249:  
mtlo \$4

subu \$1, \$4, \$4  
and \$4, \$4, \$1  
multu \$4, \$4  
TAG250:  
bltz \$4, TAG251  
lh \$4, 0(\$4)  
srl \$2, \$4, 0  
sw \$4, 0(\$4)  
TAG251:  
bne \$2, \$2, TAG252  
mthi \$2  
lui \$2, 12  
mflo \$2  
TAG252:  
lui \$3, 0  
bgez \$2, TAG253  
lui \$4, 4  
bne \$4, \$3, TAG253  
TAG253:  
mtlo \$4  
sll \$0, \$0, 0  
lui \$2, 3  
mtlo \$1  
TAG254:  
mtlo \$2  
ori \$1, \$2, 9  
beq \$1, \$2, TAG255  
mthi \$2  
TAG255:  
beq \$1, \$1, TAG256  
mfhi \$4  
mfhi \$1  
lui \$3, 6  
TAG256:  
beq \$3, \$3, TAG257  
sh \$3, 0(\$3)  
beq \$3, \$3, TAG257  
mfhi \$1  
TAG257:  
lui \$2, 11  
xori \$1, \$2, 8  
multu \$1, \$2  
bne \$2, \$1, TAG258  
TAG258:

sll \$0, \$0, 0  
mflo \$4  
mthi \$1  
slt \$3, \$1, \$4  
TAG259:  
mtlo \$3  
blez \$3, TAG260  
mflo \$1  
lbu \$4, 0(\$1)  
TAG260:  
mfhi \$1  
sb \$1, 0(\$4)  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
TAG261:  
sll \$0, \$0, 0  
sltu \$3, \$1, \$1  
lw \$4, 0(\$3)  
bne \$4, \$1, TAG262  
TAG262:  
and \$2, \$4, \$4  
ori \$4, \$2, 5  
sh \$4, 0(\$2)  
mflo \$3  
TAG263:  
lb \$4, 0(\$3)  
lui \$2, 4  
blez \$2, TAG264  
multu \$3, \$4  
TAG264:  
lui \$3, 15  
srlv \$4, \$3, \$2  
lui \$2, 13  
slti \$2, \$2, 8  
TAG265:  
lb \$4, 0(\$2)  
lui \$3, 14  
sll \$0, \$0, 0  
mthi \$3  
TAG266:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
mtlo \$1  
slti \$3, \$1, 6



```

TAG267:
lb $2, 0($3)
mthi $3
multu $3, $2
lhu $1, 0($3)
TAG268:
mtlo $1
lbu $1, 0($1)
bne $1, $1, TAG269
divu $1, $1
TAG269:
div $1, $1
mtlo $1
mfhi $2
beq $1, $2, TAG270
TAG270:
lui $2, 10
or $2, $2, $2
mflo $4
lui $2, 11
TAG271:
blez $2, TAG272
lui $2, 13
sll $0, $0, 0
lw $3, 0($3)
TAG272:
divu $3, $3
beq $3, $3, TAG273
subu $2, $3, $3
sb $3, 0($3)
TAG273:
sb $2, 0($2)
lb $1, 0($2)
lb $3, 0($1)
beq $2, $2, TAG274
TAG274:
add $3, $3, $3
addiu $1, $3, 8
sb $3, 0($3)
ori $3, $3, 4
TAG275:
lui $4, 5
srlv $1, $4, $3
sw $4, 0($3)

```

mfhi \$4  
TAG276:  
lui \$4, 10  
sll \$0, \$0, 0  
beq \$4, \$4, TAG277  
sltu \$1, \$4, \$4  
TAG277:  
addu \$1, \$1, \$1  
lui \$1, 5  
div \$1, \$1  
sll \$0, \$0, 0  
TAG278:  
mthi \$1  
andi \$1, \$1, 14  
slti \$2, \$1, 2  
mult \$1, \$1  
TAG279:  
sll \$2, \$2, 7  
lui \$1, 2  
mthi \$2  
mfhi \$3  
TAG280:  
sra \$2, \$3, \$3  
lui \$3, 2  
bltz \$2, TAG281  
mtlo \$3  
TAG281:  
addiu \$2, \$3, 11  
sll \$0, \$0, 0  
bgez \$2, TAG282  
sll \$0, \$0, 0  
TAG282:  
sra \$2, \$4, 2  
sll \$0, \$0, 0  
srlv \$4, \$2, \$4  
mtlo \$4  
TAG283:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
beq \$4, \$4, TAG284  
sll \$0, \$0, 0  
TAG284:  
sll \$0, \$0, 0  
multu \$4, \$3

bgtz \$4, TAG285  
mthi \$4  
TAG285:  
mfhi \$2  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
beq \$2, \$3, TAG286  
TAG286:  
mfhi \$3  
mthi \$2  
addu \$3, \$3, \$3  
nor \$4, \$3, \$3  
TAG287:  
sll \$0, \$0, 0  
mtlo \$4  
mthi \$4  
mtlo \$1  
TAG288:  
multu \$1, \$1  
mflo \$4  
mthi \$4  
div \$4, \$1  
TAG289:  
srav \$2, \$4, \$4  
mult \$4, \$4  
sllv \$1, \$2, \$2  
bne \$2, \$1, TAG290  
TAG290:  
mult \$1, \$1  
xor \$2, \$1, \$1  
mthi \$2  
lui \$4, 13  
TAG291:  
bne \$4, \$4, TAG292  
mflo \$2  
srav \$3, \$4, \$2  
mfhi \$2  
TAG292:  
sh \$2, 0(\$2)  
lb \$2, 0(\$2)  
blez \$2, TAG293  
mtlo \$2  
TAG293:  
beq \$2, \$2, TAG294

mtlo \$2  
mfhi \$3  
beq \$3, \$3, TAG294  
TAG294:  
sltiu \$2, \$3, 8  
bltz \$3, TAG295  
sub \$1, \$2, \$2  
subu \$1, \$3, \$3  
TAG295:  
lw \$1, 0(\$1)  
sb \$1, 0(\$1)  
beq \$1, \$1, TAG296  
multu \$1, \$1  
TAG296:  
sltiu \$2, \$1, 12  
mtlo \$2  
sh \$2, 0(\$1)  
mult \$1, \$2  
TAG297:  
andi \$1, \$2, 14  
lb \$3, 0(\$1)  
beq \$2, \$2, TAG298  
multu \$2, \$1  
TAG298:  
lui \$3, 12  
divu \$3, \$3  
beq \$3, \$3, TAG299  
mflo \$1  
TAG299:  
srav \$2, \$1, \$1  
lui \$4, 4  
beq \$2, \$4, TAG300  
or \$3, \$4, \$2  
TAG300:  
lui \$3, 5  
beq \$3, \$3, TAG301  
lui \$2, 13  
sh \$3, 0(\$3)  
TAG301:  
sll \$0, \$0, 0  
xori \$2, \$2, 2  
lui \$1, 3  
ori \$4, \$2, 10  
TAG302:

bne \$4, \$4, TAG303  
mthi \$4  
lui \$4, 14  
mfhi \$3  
TAG303:  
and \$3, \$3, \$3  
mult \$3, \$3  
mfhi \$4  
bgtz \$3, TAG304  
TAG304:  
divu \$4, \$4  
beq \$4, \$4, TAG305  
lw \$2, -169(\$4)  
lbu \$4, 0(\$2)  
TAG305:  
sll \$0, \$0, 0  
bgez \$4, TAG306  
lui \$3, 4  
beq \$3, \$4, TAG306  
TAG306:  
andi \$2, \$3, 6  
bgtz \$2, TAG307  
subu \$1, \$2, \$3  
bltz \$3, TAG307  
TAG307:  
multu \$1, \$1  
mfhi \$3  
sll \$0, \$0, 0  
sltu \$3, \$1, \$4  
TAG308:  
mtlo \$3  
addu \$2, \$3, \$3  
slt \$3, \$3, \$2  
sh \$2, 0(\$3)  
TAG309:  
lui \$3, 3  
bne \$3, \$3, TAG310  
mtlo \$3  
divu \$3, \$3  
TAG310:  
bgez \$3, TAG311  
sll \$0, \$0, 0  
lui \$4, 5  
addiu \$3, \$2, 0

TAG311:  
blez \$3, TAG312  
mflo \$1  
blez \$3, TAG312  
addu \$1, \$1, \$1  
TAG312:  
bne \$1, \$1, TAG313  
mflo \$3  
mthi \$3  
bgez \$3, TAG313  
TAG313:  
mtlo \$3  
mflo \$1  
sb \$1, 0(\$1)  
lbu \$2, 0(\$1)  
TAG314:  
lui \$1, 13  
lui \$3, 11  
mfhi \$3  
mfhi \$1  
TAG315:  
mfhi \$2  
sb \$2, 0(\$2)  
lui \$4, 6  
mflo \$2  
TAG316:  
mult \$2, \$2  
sb \$2, 0(\$2)  
lbu \$1, 0(\$2)  
lbu \$4, 0(\$1)  
TAG317:  
ori \$3, \$4, 8  
beq \$4, \$3, TAG318  
mfhi \$4  
lh \$3, 0(\$4)  
TAG318:  
multu \$3, \$3  
mflo \$1  
lhu \$3, -256(\$3)  
blez \$3, TAG319  
TAG319:  
addu \$4, \$3, \$3  
multu \$3, \$4  
srav \$2, \$4, \$4

mtlo \$2  
TAG320:  
sw \$2, -512(\$2)  
multu \$2, \$2  
sw \$2, -512(\$2)  
divu \$2, \$2  
TAG321:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
lui \$1, 0  
mflo \$3  
TAG322:  
srl \$1, \$3, 4  
lui \$2, 10  
lb \$4, 0(\$1)  
lui \$2, 15  
TAG323:  
lui \$4, 3  
nor \$4, \$4, \$2  
bgez \$4, TAG324  
addu \$3, \$4, \$2  
TAG324:  
blez \$3, TAG325  
slti \$1, \$3, 8  
mtlo \$3  
lb \$2, 0(\$3)  
TAG325:  
addu \$1, \$2, \$2  
sll \$0, \$0, 0  
andi \$3, \$2, 14  
lui \$4, 3  
TAG326:  
mflo \$1  
sll \$0, \$0, 0  
blez \$1, TAG327  
slti \$3, \$3, 11  
TAG327:  
sll \$4, \$3, 7  
srl \$2, \$3, 7  
subu \$4, \$3, \$4  
multu \$2, \$2  
TAG328:  
lui \$4, 2  
sll \$0, \$0, 0

sll \$0, \$0, 0  
andi \$2, \$4, 8  
TAG329:  
lui \$1, 12  
lui \$4, 8  
multu \$1, \$2  
bltz \$4, TAG330  
TAG330:  
mult \$4, \$4  
sll \$0, \$0, 0  
ori \$4, \$4, 7  
bne \$4, \$4, TAG331  
TAG331:  
sll \$0, \$0, 0  
divu \$1, \$1  
bne \$4, \$4, TAG332  
divu \$4, \$1  
TAG332:  
lui \$1, 8  
sll \$0, \$0, 0  
lui \$3, 7  
andi \$2, \$1, 9  
TAG333:  
sltu \$3, \$2, \$2  
lui \$4, 13  
subu \$2, \$2, \$2  
sb \$4, 0(\$3)  
TAG334:  
sb \$2, 0(\$2)  
sltu \$4, \$2, \$2  
sltu \$1, \$4, \$2  
xori \$3, \$4, 3  
TAG335:  
bne \$3, \$3, TAG336  
sll \$3, \$3, 5  
srav \$3, \$3, \$3  
bne \$3, \$3, TAG336  
TAG336:  
sllv \$4, \$3, \$3  
lui \$4, 13  
mthi \$4  
lui \$4, 6  
TAG337:  
multu \$4, \$4



mthi \$4  
beq \$4, \$4, TAG338  
mflo \$3  
TAG338:  
mtlo \$3  
mthi \$3  
and \$4, \$3, \$3  
lui \$3, 3  
TAG339:  
xori \$1, \$3, 15  
bgez \$3, TAG340  
sll \$0, \$0, 0  
mflo \$3  
TAG340:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
mult \$4, \$4  
subu \$1, \$4, \$3  
TAG341:  
bgez \$1, TAG342  
sllv \$3, \$1, \$1  
lui \$2, 5  
mflo \$4  
TAG342:  
lui \$4, 2  
blez \$4, TAG343  
sll \$0, \$0, 0  
mflo \$2  
TAG343:  
sh \$2, 0(\$2)  
lui \$2, 11  
sll \$0, \$0, 0  
lui \$4, 0  
TAG344:  
sb \$4, 0(\$4)  
sb \$4, 0(\$4)  
sw \$4, 0(\$4)  
mtlo \$4  
TAG345:  
bne \$4, \$4, TAG346  
mfhi \$1  
addi \$2, \$4, 7  
mflo \$2  
TAG346:

lw \$2, 0(\$2)  
lbu \$1, 0(\$2)  
mflo \$1  
sh \$1, 0(\$2)  
TAG347:  
sh \$1, 0(\$1)  
mult \$1, \$1  
sh \$1, 0(\$1)  
bne \$1, \$1, TAG348  
TAG348:  
and \$1, \$1, \$1  
lw \$3, 0(\$1)  
addiu \$1, \$1, 6  
lui \$2, 9  
TAG349:  
divu \$2, \$2  
subu \$1, \$2, \$2  
sll \$0, \$0, 0  
sb \$1, 0(\$1)  
TAG350:  
andi \$3, \$2, 14  
sll \$0, \$0, 0  
lui \$4, 8  
bne \$3, \$4, TAG351  
TAG351:  
sll \$0, \$0, 0  
bne \$4, \$4, TAG352  
sh \$3, 0(\$3)  
mflo \$3  
TAG352:  
bgtz \$3, TAG353  
lui \$4, 11  
mtlo \$4  
divu \$3, \$4  
TAG353:  
sltiu \$2, \$4, 12  
multu \$4, \$2  
sll \$1, \$4, 10  
slti \$2, \$1, 4  
TAG354:  
sh \$2, 0(\$2)  
sra \$2, \$2, 14  
lh \$2, 0(\$2)  
mthi \$2

```

TAG355:
sw $2, 0($2)
lui $2, 15
sltu $1, $2, $2
mult $2, $1
TAG356:
bne $1, $1, TAG357
multu $1, $1
lb $1, 0($1)
lui $2, 14
TAG357:
lui $2, 4
andi $3, $2, 14
mflo $4
mflo $1
TAG358:
or $4, $1, $1
mult $1, $1
beq $1, $4, TAG359
sb $4, 0($1)
TAG359:
bgez $4, TAG360
mflo $3
mthi $4
mflo $4
TAG360:
mflo $3
lh $3, 0($3)
lhu $4, 0($3)
mult $4, $3
TAG361:
beq $4, $4, TAG362
mtlo $4
lw $4, 0($4)
multu $4, $4
TAG362:
lui $4, 13
divu $4, $4
lui $4, 14
bne $4, $4, TAG363
TAG363:
divu $4, $4
blez $4, TAG364
mflo $3

```

lui \$2, 3  
TAG364:  
sll \$0, \$0, 0  
srlv \$2, \$4, \$2  
blez \$2, TAG365  
sll \$0, \$0, 0  
TAG365:  
sll \$0, \$0, 0  
andi \$3, \$2, 15  
bgtz \$2, TAG366  
mthi \$2  
TAG366:  
mult \$3, \$3  
sb \$3, 0(\$3)  
mtlo \$3  
mtlo \$3  
TAG367:  
xori \$3, \$3, 12  
sltu \$2, \$3, \$3  
lui \$3, 8  
bgtz \$3, TAG368  
TAG368:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
lbu \$2, 0(\$2)  
sll \$0, \$0, 0  
TAG369:  
lui \$1, 9  
beq \$1, \$1, TAG370  
sh \$1, 0(\$2)  
sh \$2, 0(\$2)  
TAG370:  
lui \$4, 14  
blez \$4, TAG371  
mult \$4, \$1  
mflo \$3  
TAG371:  
sw \$3, 0(\$3)  
mthi \$3  
sb \$3, 0(\$3)  
bne \$3, \$3, TAG372  
TAG372:  
and \$3, \$3, \$3  
lw \$2, 0(\$3)

ori \$4, \$2, 12  
bgez \$3, TAG373  
TAG373:  
slti \$1, \$4, 5  
slti \$1, \$1, 6  
sb \$4, 0(\$1)  
bne \$4, \$1, TAG374  
TAG374:  
mthi \$1  
sltu \$1, \$1, \$1  
mtlo \$1  
bgez \$1, TAG375  
TAG375:  
sw \$1, 0(\$1)  
mflo \$4  
sw \$1, 0(\$4)  
sub \$4, \$1, \$1  
TAG376:  
sra \$3, \$4, 10  
sh \$3, 0(\$4)  
slti \$2, \$3, 15  
mtlo \$4  
TAG377:  
sllv \$4, \$2, \$2  
mfhi \$1  
lb \$3, 0(\$1)  
bne \$2, \$4, TAG378  
TAG378:  
sra \$3, \$3, 9  
sb \$3, 0(\$3)  
lh \$2, 0(\$3)  
sra \$1, \$2, 0  
TAG379:  
lb \$3, 0(\$1)  
sra \$2, \$3, 13  
bne \$1, \$3, TAG380  
xor \$3, \$3, \$2  
TAG380:  
mfhi \$3  
lb \$1, 0(\$3)  
bltz \$3, TAG381  
nor \$1, \$1, \$3  
TAG381:  
andi \$1, \$1, 6

subu \$3, \$1, \$1  
beq \$1, \$1, TAG382  
lui \$2, 2  
TAG382:  
addiu \$2, \$2, 3  
mthi \$2  
bne \$2, \$2, TAG383  
sltu \$4, \$2, \$2  
TAG383:  
lui \$3, 7  
mflo \$4  
bgtz \$3, TAG384  
sll \$0, \$0, 0  
TAG384:  
multu \$4, \$4  
sltiu \$1, \$4, 4  
lui \$1, 10  
mflo \$2  
TAG385:  
lui \$3, 14  
mtlo \$3  
lui \$1, 2  
mflo \$3  
TAG386:  
mthi \$3  
sll \$0, \$0, 0  
srl \$3, \$4, 4  
sw \$4, 0(\$3)  
TAG387:  
bne \$3, \$3, TAG388  
multu \$3, \$3  
blez \$3, TAG388  
lb \$1, 0(\$3)  
TAG388:  
lui \$1, 0  
mtlo \$1  
sub \$4, \$1, \$1  
beq \$1, \$1, TAG389  
TAG389:  
mflo \$4  
bne \$4, \$4, TAG390  
slt \$1, \$4, \$4  
addiu \$1, \$1, 11  
TAG390:

lbu \$3, 0(\$1)  
sltiu \$4, \$3, 15  
sb \$1, 0(\$4)  
mult \$3, \$3  
TAG391:  
mthi \$4  
addiu \$4, \$4, 6  
mult \$4, \$4  
or \$3, \$4, \$4  
TAG392:  
mflo \$1  
divu \$1, \$3  
div \$1, \$3  
multu \$3, \$3  
TAG393:  
sll \$1, \$1, 12  
lui \$1, 13  
bltz \$1, TAG394  
mult \$1, \$1  
TAG394:  
mflo \$4  
lui \$3, 0  
and \$2, \$4, \$3  
mfhi \$3  
TAG395:  
bne \$3, \$3, TAG396  
lw \$4, -169(\$3)  
ori \$2, \$4, 6  
lh \$4, -2816(\$4)  
TAG396:  
bgtz \$4, TAG397  
mfhi \$3  
mthi \$3  
multu \$4, \$3  
TAG397:  
div \$3, \$3  
mthi \$3  
bne \$3, \$3, TAG398  
lhu \$3, -169(\$3)  
TAG398:  
blez \$3, TAG399  
sb \$3, -2816(\$3)  
mtlo \$3  
mthi \$3

TAG399:

bltz \$3, TAG400

sb \$3, -2816(\$3)

subu \$2, \$3, \$3

lui \$2, 10

TAG400:

mflo \$4

nor \$4, \$4, \$2

sll \$0, \$0, 0

beq \$4, \$2, TAG401

TAG401:

sllv \$4, \$4, \$4

and \$4, \$4, \$4

lui \$4, 12

sll \$0, \$0, 0

TAG402:

bne \$3, \$3, TAG403

mflo \$2

sh \$3, -2816(\$2)

mfhi \$2

TAG403:

subu \$3, \$2, \$2

mflo \$4

ori \$4, \$4, 1

lh \$4, -2817(\$4)

TAG404:

addu \$4, \$4, \$4

sra \$4, \$4, 15

bne \$4, \$4, TAG405

sub \$2, \$4, \$4

TAG405:

addiu \$3, \$2, 5

xori \$1, \$3, 7

sb \$3, 0(\$1)

mthi \$3

TAG406:

sh \$1, 0(\$1)

mult \$1, \$1

xor \$2, \$1, \$1

mflo \$3

TAG407:

mflo \$3

lhu \$4, 0(\$3)

andi \$4, \$3, 13



sll \$3, \$3, 12  
TAG408:  
sltiu \$1, \$3, 14  
or \$4, \$3, \$1  
lui \$2, 15  
addiu \$3, \$4, 0  
TAG409:  
mflo \$2  
beq \$3, \$2, TAG410  
multu \$2, \$3  
bgez \$2, TAG410  
TAG410:  
lhu \$3, 0(\$2)  
lhu \$1, 0(\$2)  
srlv \$1, \$1, \$1  
lui \$4, 4  
TAG411:  
mtlo \$4  
div \$4, \$4  
bne \$4, \$4, TAG412  
sltu \$3, \$4, \$4  
TAG412:  
lui \$3, 0  
beq \$3, \$3, TAG413  
lui \$1, 14  
srl \$1, \$1, 8  
TAG413:  
divu \$1, \$1  
mflo \$3  
beq \$3, \$3, TAG414  
lui \$3, 1  
TAG414:  
sll \$0, \$0, 0  
bltz \$3, TAG415  
nor \$1, \$2, \$3  
mult \$1, \$2  
TAG415:  
mthi \$1  
multu \$1, \$1  
mtlo \$1  
divu \$1, \$1  
TAG416:  
bgez \$1, TAG417  
mthi \$1

```
div $1, $1
sll $0, $0, 0
TAG417:
lui $3, 7
bgez $3, TAG418
mfhi $1
mflo $1
TAG418:
beq $1, $1, TAG419
lhu $2, 0($1)
mfhi $4
mflo $3
TAG419:
mflo $4
divu $3, $4
blez $3, TAG420
mflo $4
TAG420:
sra $4, $4, 10
lui $1, 8
bgtz $4, TAG421
addiu $4, $4, 1
TAG421:
sllv $3, $4, $4
divu $4, $3
bgez $3, TAG422
divu $3, $4
TAG422:
sll $0, $0, 0
slti $2, $1, 0
blez $3, TAG423
sll $0, $0, 0
TAG423:
mthi $3
lw $2, -898($3)
bgez $3, TAG424
sll $0, $0, 0
TAG424:
sll $0, $0, 0
bne $2, $2, TAG425
sll $0, $0, 0
mflo $4
TAG425:
addu $1, $4, $4
```

```
div $4, $4
or $3, $4, $4
lui $1, 5
TAG426:
bne $1, $1, TAG427
sll $0, $0, 0
sll $0, $0, 0
mflo $2
TAG427:
divu $2, $2
andi $1, $2, 7
mtlo $1
mfhi $1
TAG428:
nor $4, $1, $1
bne $4, $1, TAG429
multu $4, $1
blez $4, TAG429
TAG429:
sb $4, 1($4)
sb $4, 1($4)
mtlo $4
bgtz $4, TAG430
TAG430:
andi $4, $4, 8
xori $3, $4, 7
bltz $3, TAG431
addu $4, $4, $4
TAG431:
mtlo $4
bne $4, $4, TAG432
sw $4, 0($4)
blez $4, TAG432
TAG432:
multu $4, $4
mfhi $1
lw $3, 0($4)
mtlo $3
TAG433:
sw $3, 0($3)
andi $3, $3, 15
nor $1, $3, $3
sllv $3, $1, $3
TAG434:
```

sb \$3, 1(\$3)  
sltu \$2, \$3, \$3  
sb \$2, 1(\$3)  
lhu \$1, 1(\$3)  
TAG435:  
sll \$0, \$0, 0  
beq \$2, \$2, TAG436  
lui \$2, 10  
beq \$2, \$2, TAG436  
TAG436:  
div \$2, \$2  
sll \$0, \$0, 0  
sltu \$4, \$2, \$2  
mthi \$4  
TAG437:  
sll \$1, \$4, 6  
lui \$4, 15  
div \$1, \$4  
lbu \$1, 0(\$1)  
TAG438:  
lhu \$2, 0(\$1)  
lui \$3, 5  
bgez \$2, TAG439  
sltiu \$1, \$2, 15  
TAG439:  
sub \$1, \$1, \$1  
sw \$1, 0(\$1)  
mthi \$1  
sh \$1, 0(\$1)  
TAG440:  
mfhi \$3  
sb \$1, 0(\$3)  
mtlo \$1  
sub \$1, \$1, \$1  
TAG441:  
mflo \$2  
sh \$1, 0(\$2)  
slt \$2, \$1, \$1  
lui \$1, 2  
TAG442:  
sltiu \$1, \$1, 0  
mthi \$1  
mfhi \$2  
mflo \$3

TAG443:  
sb \$3, 0(\$3)  
bltz \$3, TAG444  
mfhi \$2  
nor \$4, \$2, \$3  
TAG444:  
sh \$4, 1(\$4)  
mfhi \$2  
mfhi \$2  
mtlo \$2  
TAG445:  
mult \$2, \$2  
lui \$1, 14  
bgtz \$2, TAG446  
divu \$2, \$1  
TAG446:  
bltz \$1, TAG447  
mthi \$1  
beq \$1, \$1, TAG447  
multu \$1, \$1  
TAG447:  
sll \$0, \$0, 0  
div \$3, \$1  
lh \$1, 0(\$3)  
beq \$1, \$1, TAG448  
TAG448:  
lui \$3, 12  
sra \$1, \$3, 2  
slt \$3, \$1, \$1  
subu \$3, \$3, \$1  
TAG449:  
bne \$3, \$3, TAG450  
xor \$4, \$3, \$3  
beq \$3, \$3, TAG450  
lui \$4, 15  
TAG450:  
sll \$0, \$0, 0  
divu \$4, \$4  
sll \$0, \$0, 0  
mflo \$2  
TAG451:  
bgez \$2, TAG452  
mthi \$2  
ori \$4, \$2, 6

sltiu \$2, \$4, 8  
TAG452:  
mtlo \$2  
mflo \$2  
mfhi \$4  
mtlo \$2  
TAG453:  
mthi \$4  
mfhi \$2  
lui \$1, 11  
srav \$1, \$1, \$2  
TAG454:  
sll \$0, \$0, 0  
divu \$1, \$1  
sll \$0, \$0, 0  
subu \$3, \$1, \$1  
TAG455:  
lhu \$1, 0(\$3)  
multu \$3, \$3  
bne \$1, \$3, TAG456  
or \$1, \$1, \$1  
TAG456:  
div \$1, \$1  
lui \$2, 2  
mflo \$1  
bne \$2, \$2, TAG457  
TAG457:  
mthi \$1  
addiu \$3, \$1, 7  
mtlo \$1  
mtlo \$3  
TAG458:  
lui \$1, 14  
sllv \$3, \$1, \$1  
slti \$4, \$3, 12  
sll \$0, \$0, 0  
TAG459:  
mflo \$1  
xori \$1, \$1, 4  
mthi \$4  
mflo \$1  
TAG460:  
lui \$1, 1  
sll \$0, \$0, 0

mflo \$3  
multu \$1, \$1  
TAG461:  
lui \$3, 12  
lui \$2, 10  
sll \$0, \$0, 0  
mflo \$1  
TAG462:  
xori \$4, \$1, 9  
mtlo \$4  
blez \$4, TAG463  
lui \$4, 7  
TAG463:  
beq \$4, \$4, TAG464  
mthi \$4  
srl \$3, \$4, 1  
lui \$2, 9  
TAG464:  
mtlo \$2  
lui \$3, 9  
mfhi \$2  
lui \$3, 1  
TAG465:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
div \$3, \$3  
mult \$3, \$3  
TAG466:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sltu \$1, \$3, \$3  
sltu \$2, \$3, \$1  
TAG467:  
lui \$3, 5  
mult \$2, \$2  
multu \$2, \$2  
mflo \$2  
TAG468:  
lui \$2, 15  
mtlo \$2  
bltz \$2, TAG469  
lui \$4, 0  
TAG469:  
and \$3, \$4, \$4

multu \$3, \$4  
mthi \$4  
lh \$2, 0(\$4)  
TAG470:  
sw \$2, 1(\$2)  
lui \$2, 10  
mflo \$2  
sb \$2, 0(\$2)  
TAG471:  
mtlo \$2  
multu \$2, \$2  
bgtz \$2, TAG472  
mtlo \$2  
TAG472:  
beq \$2, \$2, TAG473  
mflo \$2  
div \$2, \$2  
srav \$2, \$2, \$2  
TAG473:  
mtlo \$2  
lbu \$1, 0(\$2)  
bgez \$2, TAG474  
lui \$2, 4  
TAG474:  
mult \$2, \$2  
sll \$0, \$0, 0  
beq \$2, \$2, TAG475  
sll \$0, \$0, 0  
TAG475:  
bgtz \$2, TAG476  
sll \$4, \$2, 5  
lb \$4, 0(\$2)  
andi \$4, \$2, 6  
TAG476:  
blez \$4, TAG477  
multu \$4, \$4  
sll \$0, \$0, 0  
lui \$2, 10  
TAG477:  
mtlo \$2  
addu \$2, \$2, \$2  
sll \$0, \$0, 0  
lui \$3, 9  
TAG478:



mtlo \$3  
beq \$3, \$3, TAG479  
sll \$0, \$0, 0  
lui \$4, 11  
TAG479:  
nor \$1, \$4, \$4  
bltz \$1, TAG480  
addiu \$1, \$4, 11  
bgez \$1, TAG480  
TAG480:  
mthi \$1  
mflo \$2  
multu \$2, \$2  
sll \$0, \$0, 0  
TAG481:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
mflo \$1  
bgez \$1, TAG482  
TAG482:  
mult \$1, \$1  
lbu \$2, 0(\$1)  
mflo \$2  
multu \$1, \$2  
TAG483:  
sb \$2, 0(\$2)  
sw \$2, 0(\$2)  
multu \$2, \$2  
mtlo \$2  
TAG484:  
lui \$3, 10  
mthi \$3  
lui \$2, 8  
sll \$0, \$0, 0  
TAG485:  
multu \$4, \$4  
mflo \$2  
mult \$2, \$4  
addu \$1, \$2, \$4  
TAG486:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sltu \$1, \$1, \$1  
mult \$1, \$1

TAG487:  
mtlo \$1  
mflo \$3  
bne \$3, \$3, TAG488  
mfhi \$2  
TAG488:  
bne \$2, \$2, TAG489  
mfhi \$4  
mfhi \$3  
lhu \$4, 0(\$4)  
TAG489:  
bne \$4, \$4, TAG490  
xor \$4, \$4, \$4  
lui \$2, 9  
sll \$0, \$0, 0  
TAG490:  
blez \$2, TAG491  
divu \$2, \$2  
xori \$2, \$2, 15  
beq \$2, \$2, TAG491  
TAG491:  
mflo \$4  
sb \$4, 0(\$4)  
beq \$4, \$4, TAG492  
subu \$3, \$4, \$4  
TAG492:  
mthi \$3  
lui \$3, 3  
ori \$1, \$3, 11  
ori \$4, \$3, 5  
TAG493:  
subu \$1, \$4, \$4  
mtlo \$4  
blez \$1, TAG494  
multu \$1, \$1  
TAG494:  
lui \$2, 11  
addu \$1, \$2, \$2  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
TAG495:  
addiu \$4, \$2, 2  
mfhi \$1  
bltz \$2, TAG496

lui \$3, 0  
TAG496:  
multu \$3, \$3  
addi \$1, \$3, 10  
lui \$3, 7  
subu \$2, \$3, \$1  
TAG497:  
bgez \$2, TAG498  
ori \$2, \$2, 13  
multu \$2, \$2  
bgez \$2, TAG498  
TAG498:  
sll \$0, \$0, 0  
lui \$1, 4  
lui \$4, 9  
lui \$2, 9  
TAG499:  
bne \$2, \$2, TAG500  
div \$2, \$2  
mtlo \$2  
div \$2, \$2  
TAG500:  
xor \$1, \$2, \$2  
srlv \$4, \$2, \$2  
sh \$1, 0(\$1)  
divu \$4, \$2  
TAG501:  
mthi \$4  
blez \$4, TAG502  
mthi \$4  
nor \$3, \$4, \$4  
TAG502:  
lui \$3, 11  
beq \$3, \$3, TAG503  
mfhi \$1  
addiu \$3, \$3, 5  
TAG503:  
sll \$0, \$0, 0  
mflo \$3  
lbu \$1, 0(\$3)  
lb \$2, 0(\$3)  
TAG504:  
bltz \$2, TAG505  
lh \$3, 0(\$2)

mfhi \$4  
sh \$4, 0(\$3)  
TAG505:  
sll \$0, \$0, 0  
bne \$4, \$4, TAG506  
lui \$1, 5  
subu \$3, \$1, \$4  
TAG506:  
bgez \$3, TAG507  
mflo \$3  
sb \$3, 0(\$3)  
sb \$3, 0(\$3)  
TAG507:  
ori \$3, \$3, 14  
bgtz \$3, TAG508  
xor \$2, \$3, \$3  
mtlo \$2  
TAG508:  
sll \$4, \$2, 8  
multu \$4, \$2  
sw \$4, 0(\$2)  
bgez \$4, TAG509  
TAG509:  
lhu \$3, 0(\$4)  
lbu \$4, 0(\$3)  
lw \$3, 0(\$4)  
sb \$3, 0(\$3)  
TAG510:  
lui \$1, 1  
ori \$3, \$3, 6  
mult \$3, \$1  
and \$1, \$3, \$1  
TAG511:  
beq \$1, \$1, TAG512  
lui \$1, 9  
mult \$1, \$1  
xori \$3, \$1, 6  
TAG512:  
divu \$3, \$3  
ori \$3, \$3, 15  
multu \$3, \$3  
bne \$3, \$3, TAG513  
TAG513:  
addiu \$2, \$3, 14

srav \$4, \$3, \$2  
ori \$3, \$3, 13  
lbu \$3, 0(\$3)  
TAG514:  
and \$4, \$3, \$3  
sub \$3, \$3, \$4  
bne \$4, \$3, TAG515  
multu \$3, \$3  
TAG515:  
mthi \$3  
subu \$1, \$3, \$3  
mtlo \$1  
sra \$3, \$3, 9  
TAG516:  
mflo \$4  
nor \$1, \$4, \$4  
mflo \$4  
mfhi \$3  
TAG517:  
beq \$3, \$3, TAG518  
mtlo \$3  
subu \$1, \$3, \$3  
lw \$4, 0(\$3)  
TAG518:  
mfhi \$2  
sub \$2, \$2, \$4  
bgtz \$2, TAG519  
sh \$2, 0(\$2)  
TAG519:  
bne \$2, \$2, TAG520  
sh \$2, 0(\$2)  
mthi \$2  
multu \$2, \$2  
TAG520:  
lui \$4, 8  
mtlo \$2  
div \$2, \$4  
bne \$2, \$2, TAG521  
TAG521:  
sll \$0, \$0, 0  
multu \$4, \$1  
sllv \$4, \$4, \$4  
bgtz \$1, TAG522  
TAG522:

mtlo \$4  
sll \$0, \$0, 0  
mthi \$4  
lui \$4, 11  
TAG523:  
bgez \$4, TAG524  
sll \$0, \$0, 0  
sw \$2, 0(\$2)  
lw \$1, 0(\$2)  
TAG524:  
bgtz \$1, TAG525  
lw \$4, 1(\$1)  
mthi \$1  
mflo \$3  
TAG525:  
sll \$0, \$0, 0  
ori \$2, \$3, 3  
lui \$2, 1  
mfhi \$4  
TAG526:  
mflo \$1  
addiu \$1, \$4, 6  
or \$4, \$4, \$4  
addu \$1, \$4, \$4  
TAG527:  
sw \$1, 2(\$1)  
mfhi \$2  
mtlo \$1  
lui \$3, 7  
TAG528:  
sll \$0, \$0, 0  
divu \$4, \$4  
sll \$0, \$0, 0  
mthi \$3  
TAG529:  
bgtz \$4, TAG530  
lh \$3, 1(\$4)  
bne \$4, \$4, TAG530  
lui \$4, 1  
TAG530:  
sll \$0, \$0, 0  
sll \$2, \$4, 15  
mflo \$2  
ori \$1, \$4, 2

TAG531:  
bgtz \$1, TAG532  
mult \$1, \$1  
mthi \$1  
beq \$1, \$1, TAG532  
TAG532:  
addiu \$1, \$1, 13  
lui \$2, 7  
subu \$2, \$2, \$2  
mthi \$2  
TAG533:  
lui \$3, 0  
lui \$3, 3  
sll \$0, \$0, 0  
mult \$2, \$3  
TAG534:  
sll \$0, \$0, 0  
bgtz \$3, TAG535  
mfhi \$1  
mflo \$2  
TAG535:  
mtlo \$2  
mthi \$2  
srav \$4, \$2, \$2  
or \$4, \$2, \$4  
TAG536:  
mtlo \$4  
lw \$2, 0(\$4)  
mflo \$4  
multu \$4, \$4  
TAG537:  
mflo \$4  
xor \$1, \$4, \$4  
bne \$1, \$4, TAG538  
lui \$4, 2  
TAG538:  
lui \$3, 6  
mthi \$4  
sll \$0, \$0, 0  
multu \$4, \$3  
TAG539:  
sll \$0, \$0, 0  
lui \$2, 6  
divu \$2, \$3

andi \$1, \$3, 11  
TAG540:  
andi \$4, \$1, 3  
addu \$1, \$4, \$1  
mthi \$1  
beq \$1, \$1, TAG541  
TAG541:  
mfhi \$2  
or \$2, \$1, \$2  
mfhi \$3  
mtlo \$1  
TAG542:  
lui \$2, 5  
mult \$3, \$2  
ori \$3, \$2, 9  
sll \$0, \$0, 0  
TAG543:  
beq \$1, \$1, TAG544  
multu \$1, \$1  
bgtz \$1, TAG544  
mflo \$2  
TAG544:  
blez \$2, TAG545  
sllv \$1, \$2, \$2  
addu \$3, \$1, \$1  
nor \$2, \$2, \$3  
TAG545:  
mtlo \$2  
addiu \$1, \$2, 6  
bgez \$2, TAG546  
lui \$1, 6  
TAG546:  
multu \$1, \$1  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
TAG547:  
blez \$3, TAG548  
div \$3, \$3  
beq \$3, \$3, TAG548  
mflo \$2  
TAG548:  
sb \$2, 0(\$2)  
bgez \$2, TAG549



lbu \$2, 0(\$2)  
ori \$2, \$2, 12  
TAG549:  
mult \$2, \$2  
lui \$3, 10  
or \$4, \$3, \$2  
mfhi \$2  
TAG550:  
lb \$4, 0(\$2)  
mfhi \$2  
divu \$2, \$4  
mult \$4, \$2  
TAG551:  
sb \$2, 0(\$2)  
lui \$2, 11  
mfhi \$2  
bne \$2, \$2, TAG552  
TAG552:  
mfhi \$1  
bgez \$2, TAG553  
mflo \$2  
subu \$1, \$1, \$1  
TAG553:  
bgez \$1, TAG554  
mtlo \$1  
bne \$1, \$1, TAG554  
mflo \$4  
TAG554:  
sll \$2, \$4, 7  
sh \$4, 2(\$4)  
sltu \$4, \$4, \$4  
lh \$3, 256(\$2)  
TAG555:  
slti \$3, \$3, 3  
mult \$3, \$3  
bltz \$3, TAG556  
sltu \$4, \$3, \$3  
TAG556:  
mfhi \$2  
lui \$3, 0  
beq \$2, \$3, TAG557  
sh \$3, 0(\$2)  
TAG557:  
mtlo \$3

sltu \$1, \$3, \$3  
nor \$2, \$1, \$1  
beq \$1, \$3, TAG558

TAG558:

mthi \$2  
lhu \$3, 1(\$2)  
lui \$1, 12  
srlv \$4, \$3, \$3

TAG559:

lh \$4, 0(\$4)  
bne \$4, \$4, TAG560  
xori \$3, \$4, 9  
bgtz \$4, TAG560

TAG560:

addu \$1, \$3, \$3  
nor \$4, \$3, \$3  
addu \$3, \$4, \$3  
bne \$4, \$3, TAG561

TAG561:

multu \$3, \$3  
srav \$3, \$3, \$3  
srl \$3, \$3, 14  
sll \$0, \$0, 0

TAG562:

mfhi \$1  
subu \$3, \$3, \$3  
xori \$1, \$3, 4  
multu \$1, \$3

TAG563:

sh \$1, 0(\$1)  
subu \$4, \$1, \$1  
lhu \$1, 0(\$4)  
blez \$1, TAG564

TAG564:

lh \$2, 0(\$1)  
sw \$1, 0(\$2)  
bne \$1, \$2, TAG565  
lui \$4, 9

TAG565:

lui \$4, 13  
sll \$0, \$0, 0  
mfhi \$4  
mthi \$4

TAG566:

sra \$1, \$4, 2  
sllv \$2, \$4, \$1  
blez \$2, TAG567  
mtlo \$2  
TAG567:  
mult \$2, \$2  
bltz \$2, TAG568  
srl \$1, \$2, 0  
lui \$2, 2  
TAG568:  
lui \$4, 2  
mthi \$4  
bne \$4, \$2, TAG569  
mfhi \$3  
TAG569:  
sll \$0, \$0, 0  
andi \$1, \$3, 4  
mfhi \$2  
beq \$2, \$2, TAG570  
TAG570:  
div \$2, \$2  
mult \$2, \$2  
slt \$3, \$2, \$2  
bgtz \$3, TAG571  
TAG571:  
mult \$3, \$3  
sltiu \$2, \$3, 15  
bgez \$2, TAG572  
multu \$2, \$3  
TAG572:  
bgez \$2, TAG573  
mult \$2, \$2  
div \$2, \$2  
nor \$2, \$2, \$2  
TAG573:  
mthi \$2  
beq \$2, \$2, TAG574  
lui \$2, 8  
bne \$2, \$2, TAG574  
TAG574:  
and \$1, \$2, \$2  
divu \$2, \$1  
mflo \$2  
beq \$1, \$1, TAG575

TAG575:  
addu \$1, \$2, \$2  
beq \$2, \$2, TAG576  
addu \$3, \$2, \$2  
lui \$4, 4  
TAG576:  
sll \$0, \$0, 0  
mthi \$4  
sll \$0, \$0, 0  
bgez \$4, TAG577  
TAG577:  
subu \$2, \$4, \$4  
lui \$2, 6  
bne \$2, \$2, TAG578  
sltu \$4, \$2, \$4  
TAG578:  
lui \$4, 10  
sll \$0, \$0, 0  
mtlo \$4  
xori \$1, \$4, 2  
TAG579:  
bne \$1, \$1, TAG580  
sll \$0, \$0, 0  
mult \$1, \$1  
slti \$4, \$1, 3  
TAG580:  
sb \$4, 0(\$4)  
bgez \$4, TAG581  
lbu \$3, 0(\$4)  
blez \$3, TAG581  
TAG581:  
lui \$3, 3  
srav \$4, \$3, \$3  
blez \$3, TAG582  
sll \$0, \$0, 0  
TAG582:  
lui \$2, 7  
mfhi \$2  
mult \$2, \$2  
lbu \$1, 0(\$2)  
TAG583:  
sb \$1, 0(\$1)  
mflo \$1  
sh \$1, -10000(\$1)

beq \$1, \$1, TAG584

TAG584:

sw \$1, -10000(\$1)

divu \$1, \$1

and \$2, \$1, \$1

xor \$3, \$2, \$1

TAG585:

lb \$4, 0(\$3)

mthi \$3

lui \$2, 0

mflo \$4

TAG586:

sltu \$2, \$4, \$4

sltiu \$4, \$2, 13

bgez \$2, TAG587

lui \$3, 6

TAG587:

sll \$0, \$0, 0

lhu \$4, -10000(\$1)

lb \$4, -10000(\$1)

mtlo \$1

TAG588:

sh \$4, 0(\$4)

div \$4, \$4

mult \$4, \$4

sltiu \$2, \$4, 4

TAG589:

multu \$2, \$2

mtlo \$2

srl \$2, \$2, 10

mthi \$2

TAG590:

multu \$2, \$2

or \$1, \$2, \$2

blez \$1, TAG591

or \$4, \$2, \$1

TAG591:

srav \$3, \$4, \$4

mfhi \$3

mult \$4, \$4

mfhi \$1

TAG592:

bne \$1, \$1, TAG593

multu \$1, \$1

mthi \$1  
bgtz \$1, TAG593  
TAG593:  
mfhi \$3  
lh \$1, 0(\$3)  
multu \$1, \$1  
mfhi \$4  
TAG594:  
lui \$2, 3  
mtlo \$4  
sub \$4, \$2, \$4  
sll \$0, \$0, 0  
TAG595:  
subu \$4, \$4, \$4  
mtlo \$4  
lui \$4, 14  
beq \$4, \$4, TAG596  
TAG596:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
subu \$1, \$4, \$4  
sll \$0, \$0, 0  
TAG597:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
slti \$2, \$2, 9  
bltz \$4, TAG598  
TAG598:  
multu \$2, \$2  
mult \$2, \$2  
mflo \$2  
sh \$2, 0(\$2)  
TAG599:  
sb \$2, 0(\$2)  
multu \$2, \$2  
mfhi \$1  
sw \$2, 0(\$2)  
TAG600:  
bne \$1, \$1, TAG601  
mtlo \$1  
bne \$1, \$1, TAG601  
lui \$2, 11  
TAG601:  
sll \$0, \$0, 0

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sll $0, $0, 0
lui $2, 12
sll $0, $0, 0
TAG602:
mtlo $2
andi $1, $2, 15
bltz $1, TAG603
sw $1, 0($1)
TAG603:
lw $1, 0($1)
bltz $1, TAG604
sb $1, 0($1)
nor $3, $1, $1
TAG604:
divu $3, $3
mthi $3
lh $2, 1($3)
mflo $3
TAG605:
bne $3, $3, TAG606
lbu $1, 0($3)
lh $2, 0($1)
srav $3, $3, $1
TAG606:
blez $3, TAG607
srl $2, $3, 3
mflo $4
bgez $2, TAG607
TAG607:
sb $4, 0($4)
mtlo $4
beq $4, $4, TAG608
mthi $4
TAG608:
sb $4, 0($4)
sb $4, 0($4)
sb $4, 0($4)
mfhi $2
TAG609:
mflo $3
mult $2, $2
lui $2, 6
beq $3, $3, TAG610
TAG610:
```

lui \$1, 3  
beq \$1, \$2, TAG611  
mflo \$3  
beq \$2, \$2, TAG611  
TAG611:  
mfhi \$4  
sb \$3, 0(\$3)  
nor \$2, \$4, \$3  
mflo \$2  
TAG612:  
lui \$4, 7  
lbu \$2, 0(\$2)  
mflo \$1  
slti \$3, \$2, 8  
TAG613:  
slti \$4, \$3, 0  
lui \$3, 8  
multu \$3, \$4  
multu \$3, \$3  
TAG614:  
mult \$3, \$3  
sll \$0, \$0, 0  
lbu \$4, 0(\$4)  
multu \$4, \$4  
TAG615:  
lhu \$3, 0(\$4)  
mult \$3, \$4  
lhu \$4, -256(\$3)  
mfhi \$1  
TAG616:  
bne \$1, \$1, TAG617  
srl \$4, \$1, 8  
lw \$4, 0(\$1)  
beq \$4, \$4, TAG617  
TAG617:  
sb \$4, -256(\$4)  
lui \$1, 15  
bne \$1, \$1, TAG618  
sh \$1, -256(\$4)  
TAG618:  
sll \$0, \$0, 0  
addu \$4, \$1, \$1  
xori \$4, \$1, 0  
addu \$1, \$1, \$4



TAG619:

mfhi \$3  
addu \$1, \$1, \$3  
sll \$0, \$0, 0  
ori \$2, \$1, 5

TAG620:

slt \$2, \$2, \$2  
beq \$2, \$2, TAG621  
mtlo \$2  
bne \$2, \$2, TAG621

TAG621:

lui \$3, 0  
multu \$3, \$2  
xori \$3, \$3, 3  
sb \$2, 0(\$3)

TAG622:

srlv \$3, \$3, \$3  
beq \$3, \$3, TAG623  
mfhi \$1  
mflo \$2

TAG623:

sllv \$1, \$2, \$2  
bne \$2, \$1, TAG624  
sb \$2, 0(\$1)  
beq \$2, \$1, TAG624

TAG624:

lw \$1, 0(\$1)  
lui \$3, 9  
and \$3, \$3, \$1  
subu \$3, \$1, \$3

TAG625:

lh \$1, 0(\$3)  
sllv \$2, \$3, \$3  
sra \$2, \$2, 12  
lui \$2, 4

TAG626:

lui \$4, 9  
ori \$3, \$4, 5  
mtlo \$2  
sll \$0, \$0, 0

TAG627:

subu \$4, \$3, \$3  
nor \$4, \$4, \$4  
slti \$1, \$4, 3

sb \$1, 0(\$1)  
TAG628:  
sb \$1, 0(\$1)  
lbu \$2, 0(\$1)  
mfhi \$3  
blez \$3, TAG629  
TAG629:  
mfhi \$3  
multu \$3, \$3  
mflo \$2  
mtlo \$3  
TAG630:  
bgez \$2, TAG631  
mthi \$2  
sw \$2, 0(\$2)  
bltz \$2, TAG631  
TAG631:  
slti \$4, \$2, 11  
mthi \$4  
bne \$4, \$2, TAG632  
addu \$4, \$2, \$4  
TAG632:  
mtlo \$4  
mtlo \$4  
mthi \$4  
ori \$3, \$4, 6  
TAG633:  
addiu \$1, \$3, 3  
lui \$3, 10  
bgez \$3, TAG634  
sllv \$2, \$3, \$1  
TAG634:  
bgez \$2, TAG635  
sll \$0, \$0, 0  
mthi \$2  
mthi \$2  
TAG635:  
sll \$0, \$0, 0  
divu \$2, \$2  
mult \$2, \$2  
sll \$3, \$2, 15  
TAG636:  
sub \$4, \$3, \$3  
mtlo \$3

mflo \$3  
andi \$1, \$3, 7  
TAG637:  
mtlo \$1  
lb \$2, 0(\$1)  
mthi \$2  
multu \$2, \$2  
TAG638:  
ori \$4, \$2, 8  
blez \$4, TAG639  
mult \$4, \$2  
ori \$1, \$2, 1  
TAG639:  
lui \$3, 8  
slti \$3, \$3, 4  
sb \$1, 0(\$1)  
mfhi \$1  
TAG640:  
lui \$2, 10  
sh \$1, 0(\$1)  
sra \$4, \$1, 6  
lb \$1, 0(\$1)  
TAG641:  
bltz \$1, TAG642  
lui \$1, 1  
mthi \$1  
div \$1, \$1  
TAG642:  
sll \$0, \$0, 0  
beq \$1, \$2, TAG643  
sllv \$3, \$2, \$2  
bgez \$1, TAG643  
TAG643:  
sll \$0, \$0, 0  
andi \$1, \$3, 15  
bltz \$3, TAG644  
mtlo \$1  
TAG644:  
beq \$1, \$1, TAG645  
mfhi \$3  
beq \$1, \$3, TAG645  
lhu \$2, 0(\$3)  
TAG645:  
mtlo \$2

mflo \$1  
mfhi \$3  
lui \$2, 10  
TAG646:  
sll \$0, \$0, 0  
bgtz \$2, TAG647  
subu \$3, \$2, \$2  
mflo \$2  
TAG647:  
mthi \$2  
sll \$0, \$0, 0  
lui \$2, 10  
mfhi \$4  
TAG648:  
sll \$0, \$0, 0  
mtlo \$4  
and \$1, \$1, \$1  
mtlo \$1  
TAG649:  
sll \$0, \$0, 0  
divu \$1, \$4  
bgtz \$1, TAG650  
sll \$0, \$0, 0  
TAG650:  
bgez \$4, TAG651  
mfhi \$1  
slt \$1, \$4, \$1  
multu \$4, \$1  
TAG651:  
mthi \$1  
mtlo \$1  
sll \$3, \$1, 7  
mflo \$1  
TAG652:  
lui \$3, 3  
mflo \$4  
mthi \$1  
slti \$2, \$4, 15  
TAG653:  
beq \$2, \$2, TAG654  
mflo \$1  
bne \$2, \$2, TAG654  
ori \$2, \$2, 13  
TAG654:

mflo \$2  
beq \$2, \$2, TAG655  
mtlo \$2  
lui \$3, 11  
TAG655:  
sll \$0, \$0, 0  
divu \$3, \$3  
addiu \$1, \$1, 12  
divu \$1, \$3  
TAG656:  
bne \$1, \$1, TAG657  
lui \$1, 5  
sll \$0, \$0, 0  
bgtz \$1, TAG657  
TAG657:  
lui \$4, 8  
mtlo \$1  
slt \$3, \$1, \$1  
sw \$1, 0(\$3)  
TAG658:  
lb \$2, 0(\$3)  
lw \$3, 0(\$3)  
lui \$4, 1  
bne \$4, \$2, TAG659  
TAG659:  
lui \$2, 15  
mthi \$4  
lui \$1, 13  
lui \$3, 10  
TAG660:  
lui \$2, 8  
divu \$2, \$2  
lui \$1, 0  
sll \$0, \$0, 0  
TAG661:  
sb \$1, 0(\$1)  
bltz \$1, TAG662  
lui \$3, 2  
sw \$1, 0(\$1)  
TAG662:  
sll \$0, \$0, 0  
and \$2, \$3, \$3  
sll \$0, \$0, 0  
srlv \$3, \$3, \$2

TAG663:  
divu \$3, \$3  
beq \$3, \$3, TAG664  
mfhi \$1  
mflo \$3  
TAG664:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
bltz \$4, TAG665  
TAG665:  
sll \$0, \$0, 0  
mflo \$1  
beq \$1, \$4, TAG666  
sra \$1, \$1, 2  
TAG666:  
bgtz \$1, TAG667  
multu \$1, \$1  
and \$2, \$1, \$1  
lui \$1, 11  
TAG667:  
mthi \$1  
lui \$4, 3  
sll \$0, \$0, 0  
lui \$4, 4  
TAG668:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
blez \$4, TAG669  
sll \$0, \$0, 0  
TAG669:  
beq \$4, \$4, TAG670  
sll \$0, \$0, 0  
bgtz \$4, TAG670  
srav \$1, \$3, \$3  
TAG670:  
sll \$1, \$1, 15  
or \$4, \$1, \$1  
subu \$3, \$1, \$1  
mtlo \$1  
TAG671:  
lui \$1, 4  
addi \$3, \$3, 14  
sltu \$4, \$1, \$3

mtlo \$1  
TAG672:  
sb \$4, 0(\$4)  
lb \$2, 0(\$4)  
mthi \$4  
lbu \$4, 0(\$4)  
TAG673:  
sb \$4, 0(\$4)  
bgtz \$4, TAG674  
sb \$4, 0(\$4)  
lui \$2, 14  
TAG674:  
mfhi \$2  
bgez \$2, TAG675  
sh \$2, 0(\$2)  
sltu \$2, \$2, \$2  
TAG675:  
sh \$2, 0(\$2)  
bgtz \$2, TAG676  
srlv \$3, \$2, \$2  
sw \$3, 0(\$3)  
TAG676:  
bgez \$3, TAG677  
slt \$1, \$3, \$3  
mfhi \$4  
beq \$3, \$4, TAG677  
TAG677:  
lhu \$4, 0(\$4)  
mflo \$1  
sll \$0, \$0, 0  
bltz \$4, TAG678  
TAG678:  
mult \$1, \$1  
mult \$1, \$1  
sllv \$1, \$1, \$1  
addu \$1, \$1, \$1  
TAG679:  
sra \$2, \$1, 9  
div \$1, \$1  
bltz \$1, TAG680  
lui \$1, 10  
TAG680:  
sll \$0, \$0, 0  
sll \$0, \$0, 0

mfhi \$3  
bne \$1, \$3, TAG681  
TAG681:  
mthi \$3  
ori \$2, \$3, 12  
addu \$2, \$3, \$3  
srav \$4, \$3, \$3  
TAG682:  
sw \$4, 0(\$4)  
mflo \$2  
mult \$4, \$2  
mflo \$1  
TAG683:  
sllv \$2, \$1, \$1  
srav \$1, \$2, \$2  
lui \$3, 3  
mtlo \$3  
TAG684:  
multu \$3, \$3  
lui \$1, 10  
mult \$1, \$3  
ori \$3, \$3, 12  
TAG685:  
mflo \$1  
lui \$4, 8  
sll \$0, \$0, 0  
sllv \$1, \$2, \$2  
TAG686:  
sub \$3, \$1, \$1  
mfhi \$4  
bne \$4, \$3, TAG687  
sh \$3, 0(\$4)  
TAG687:  
sh \$4, 0(\$4)  
lui \$1, 8  
or \$4, \$1, \$1  
bltz \$4, TAG688  
TAG688:  
mflo \$4  
lb \$2, 0(\$4)  
bgez \$2, TAG689  
lui \$3, 7  
TAG689:  
sll \$0, \$0, 0



sltiu \$1, \$3, 0  
beq \$3, \$1, TAG690  
mfhi \$4  
TAG690:  
bne \$4, \$4, TAG691  
sh \$4, 0(\$4)  
mthi \$4  
sltiu \$2, \$4, 13  
TAG691:  
mtlo \$2  
lui \$3, 11  
beq \$3, \$2, TAG692  
sll \$0, \$0, 0  
TAG692:  
blez \$3, TAG693  
subu \$3, \$3, \$3  
mthi \$3  
beq \$3, \$3, TAG693  
TAG693:  
mthi \$3  
lui \$4, 3  
mfhi \$2  
lhu \$4, 0(\$3)  
TAG694:  
lh \$1, 0(\$4)  
sh \$4, 0(\$1)  
sh \$1, 0(\$4)  
mthi \$1  
TAG695:  
multu \$1, \$1  
lui \$4, 7  
add \$4, \$1, \$4  
srl \$4, \$4, 0  
TAG696:  
sll \$0, \$0, 0  
sw \$4, 0(\$2)  
mult \$4, \$2  
lui \$4, 1  
TAG697:  
sll \$0, \$0, 0  
xori \$1, \$4, 1  
mthi \$1  
sltiu \$3, \$1, 13  
TAG698:

bne \$3, \$3, TAG699

sllv \$4, \$3, \$3

multu \$3, \$4

multu \$4, \$3

TAG699:

multu \$4, \$4

lb \$2, 0(\$4)

multu \$2, \$4

mflo \$3

TAG700:

blez \$3, TAG701

xori \$2, \$3, 9

mflo \$4

div \$4, \$2

TAG701:

multu \$4, \$4

mfhi \$1

and \$2, \$1, \$1

lui \$1, 6

TAG702:

mfhi \$1

addu \$4, \$1, \$1

sb \$1, 0(\$4)

sra \$1, \$1, \$1

TAG703:

mult \$1, \$1

addi \$2, \$1, 6

bne \$2, \$2, TAG704

ori \$2, \$2, 2

TAG704:

slti \$2, \$2, 8

beq \$2, \$2, TAG705

mtlo \$2

mthi \$2

TAG705:

lbu \$4, 0(\$2)

sra \$1, \$2, 12

srl \$2, \$4, 12

multu \$2, \$1

TAG706:

bgez \$2, TAG707

multu \$2, \$2

mtlo \$2

blez \$2, TAG707

TAG707:  
lb \$1, 0(\$2)  
and \$2, \$2, \$2  
lh \$1, 0(\$1)  
blez \$1, TAG708  
TAG708:  
lui \$3, 15  
mthi \$3  
bgez \$3, TAG709  
mflo \$2  
TAG709:  
lbu \$2, 0(\$2)  
lbu \$4, 0(\$2)  
mfhi \$2  
lui \$2, 13  
TAG710:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
bltz \$2, TAG711  
sll \$0, \$0, 0  
TAG711:  
lbu \$3, 0(\$1)  
mthi \$3  
mult \$3, \$1  
mult \$1, \$3  
TAG712:  
mfhi \$2  
beq \$2, \$2, TAG713  
lui \$1, 0  
sw \$1, 0(\$2)  
TAG713:  
bne \$1, \$1, TAG714  
multu \$1, \$1  
blez \$1, TAG714  
multu \$1, \$1  
TAG714:  
mflo \$1  
xor \$2, \$1, \$1  
nor \$2, \$2, \$2  
sra \$3, \$2, 2  
TAG715:  
sh \$3, 1(\$3)  
lui \$3, 1  
bgtz \$3, TAG716

sll \$0, \$0, 0  
TAG716:  
srlv \$1, \$3, \$3  
lui \$4, 3  
mfhi \$2  
mfhi \$4  
TAG717:  
multu \$4, \$4  
sb \$4, 0(\$4)  
mult \$4, \$4  
blez \$4, TAG718  
TAG718:  
and \$3, \$4, \$4  
andi \$1, \$4, 3  
mtlo \$4  
multu \$4, \$1  
TAG719:  
beq \$1, \$1, TAG720  
mflo \$1  
sh \$1, 0(\$1)  
sw \$1, 0(\$1)  
TAG720:  
lh \$3, 0(\$1)  
mtlo \$1  
lbu \$3, 0(\$1)  
mtlo \$3  
TAG721:  
mthi \$3  
beq \$3, \$3, TAG722  
lui \$3, 13  
sw \$3, 0(\$3)  
TAG722:  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
bne \$3, \$3, TAG723  
mtlo \$3  
TAG723:  
mflo \$2  
sll \$0, \$0, 0  
lui \$4, 13  
sll \$0, \$0, 0  
TAG724:  
xori \$4, \$4, 11  
subu \$2, \$4, \$4

sll \$0, \$0, 0  
mfhi \$3  
TAG725:  
sh \$3, 0(\$3)  
xor \$1, \$3, \$3  
bltz \$3, TAG726  
mult \$3, \$3  
TAG726:  
bltz \$1, TAG727  
and \$4, \$1, \$1  
sb \$4, 0(\$4)  
sw \$1, 0(\$4)  
TAG727:  
bgtz \$4, TAG728  
lw \$1, 0(\$4)  
lui \$4, 13  
lh \$4, 0(\$1)  
TAG728:  
bltz \$4, TAG729  
sltiu \$2, \$4, 15  
bgez \$4, TAG729  
subu \$4, \$4, \$2  
TAG729:  
lui \$4, 11  
sll \$0, \$0, 0  
srav \$1, \$4, \$4  
sll \$0, \$0, 0  
TAG730:  
multu \$1, \$1  
sll \$0, \$0, 0  
sll \$0, \$0, 0  
blez \$3, TAG731  
TAG731:  
lui \$1, 6  
nor \$3, \$1, \$3  
lui \$4, 13  
beq \$3, \$3, TAG732  
TAG732:  
mtlo \$4  
andi \$2, \$4, 11  
sb \$4, 0(\$2)  
mfhi \$2  
TAG733:  
addiu \$2, \$2, 11

bne \$2, \$2, TAG734

nor \$4, \$2, \$2

multu \$4, \$4

TAG734:

mthi \$4

mfhi \$1

mult \$1, \$4

addiu \$2, \$4, 11

TAG735:

sll \$0, \$0, 0

addiu \$4, \$3, 12

mult \$2, \$2

and \$2, \$3, \$2

TAG736:

blez \$2, TAG737

sll \$0, \$0, 0

bgtz \$2, TAG737

lb \$3, 0(\$2)

TAG737:

sll \$0, \$0, 0

mflo \$4

srl \$3, \$4, 5

sltiu \$3, \$4, 3

TAG738:

multu \$3, \$3

mthi \$3

mult \$3, \$3

lui \$4, 12

TAG739:

lui \$1, 14

bne \$4, \$4, TAG740

mflo \$2

mthi \$2

TAG740:

srl \$2, \$2, 14

blez \$2, TAG741

ori \$1, \$2, 6

subu \$2, \$2, \$1

TAG741:

multu \$2, \$2

mthi \$2

sltu \$1, \$2, \$2

lw \$2, 0(\$2)

TAG742:

```
sh $2, 0($2)
mfhi $4
mthi $2
lui $4, 5
TAG743:
bne $4, $4, TAG744
sll $0, $0, 0
sll $0, $0, 0
srav $1, $4, $4
TAG744:
beq $1, $1, TAG745
lui $2, 12
mfhi $2
mthi $2
TAG745:
sll $0, $0, 0
lui $2, 12
addu $3, $2, $2
subu $3, $3, $2
TAG746:
bne $3, $3, TAG747
sll $0, $0, 0
sll $0, $0, 0
sltiu $4, $4, 15
TAG747:
lw $2, 0($4)
lhu $3, 0($2)
beq $4, $3, TAG748
addiu $4, $3, 15
TAG748:
or $1, $4, $4
xor $4, $4, $1
bgtz $1, TAG749
mflo $2
TAG749:
mult $2, $2
bne $2, $2, TAG750
mthi $2
xor $1, $2, $2
TAG750:
nop
nop
test_end:
beq $0, $0, test_end
```

nop

输出

@00003000: \$ 1 <= 00000008  
@00003004: \$ 2 <= 00000009  
@00003008: \$ 3 <= 00000004  
@0000300c: \$ 4 <= 00000007  
@00003010: \*00000000 <= 00000008  
@00003014: \*00000004 <= 00000007  
@00003018: \*00000008 <= 00000007  
@0000301c: \*0000000c <= 00000004  
@00003020: \*00000010 <= 00000004  
@00003024: \*00000014 <= 00000008  
@00003028: \*00000018 <= 00000009  
@0000302c: \*0000001c <= 00000008  
@00003030: \*00000020 <= 00000008  
@00003034: \*00000024 <= 00000009  
@00003038: \*00000028 <= 00000009  
@0000303c: \*0000002c <= 00000008  
@00003040: \*00000030 <= 00000007  
@00003044: \*00000034 <= 00000008  
@00003048: \*00000038 <= 00000008  
@0000304c: \*0000003c <= 00000008  
@00003050: \*00000040 <= 00000004  
@00003054: \*00000044 <= 00000004  
@00003058: \*00000048 <= 00000004  
@0000305c: \*0000004c <= 00000004  
@00003060: \*00000050 <= 00000004  
@00003064: \*00000054 <= 00000009  
@00003068: \*00000058 <= 00000009  
@0000306c: \*0000005c <= 00000009  
@00003070: \*00000060 <= 00000007  
@00003074: \*00000064 <= 00000009  
@00003078: \*00000068 <= 00000004  
@0000307c: \*0000006c <= 00000007  
@00003080: \*00000070 <= 00000008  
@00003084: \*00000074 <= 00000009  
@00003088: \*00000078 <= 00000004  
@0000308c: \*0000007c <= 00000008  
@00003094: \$ 1 <= 00000015  
@00003098: \*00000014 <= 00001508  
@0000309c: \$ 3 <= 00000000  
@000030a0: \$ 1 <= 00000009  
@000030a4: \*00000008 <= 00000007  
@000030a8: \$ 1 <= 00000008



@000030b4: \$ 3 <= 00010000  
@000030bc: \$ 3 <= 000e0000  
@000030c0: \$ 3 <= 00000000  
@000030c4: \$ 1 <= 00000000  
@000030c8: \*00000000 <= 00000000  
@000030cc: \$ 4 <= 00000000  
@000030e0: \$ 1 <= 00090000  
@000030e8: \$ 4 <= 00000009  
@000030f0: \$ 4 <= 000d0000  
@000030f4: \$ 1 <= fff2ffff  
@000030fc: \$ 3 <= fff2ffff  
@00003108: \$ 3 <= 00000000  
@00003110: \$ 2 <= 00000000  
@00003118: \$ 1 <= 00000000  
@00003120: \*00000000 <= 00000000  
@00003124: \$ 1 <= 000a0000  
@00003128: \$ 3 <= 00002800  
@0000312c: \$ 2 <= 00070000  
@00003130: \$ 2 <= 0007000a  
@00003134: \$ 1 <= 0007000b  
@0000313c: \$ 2 <= 00000000  
@00003140: \$ 1 <= 00000000  
@00003144: \$ 3 <= 000a0000  
@00003148: \$ 4 <= 000a0000  
@00003158: \$ 3 <= 00000000  
@00003164: \$ 4 <= 00000000  
@0000316c: \$ 2 <= 00000000  
@00003170: \$ 4 <= 000d0000  
@00003180: \$ 3 <= 00000000  
@00003180: \$ 3 <= 00000000  
@0000318c: \$ 2 <= 000b0000  
@00003194: \$ 3 <= 00000000  
@00003198: \$ 2 <= 00000000  
@0000319c: \*00000000 <= 00000000  
@000031a4: \$ 2 <= 00050000  
@000031a8: \$ 2 <= 00000000  
@000031ac: \*00000000 <= 00000000  
@000031b4: \$ 4 <= 00000000  
@000031c4: \$ 2 <= 00040000  
@000031d0: \$ 1 <= 00000001  
@000031d8: \$ 1 <= 00000001  
@000031dc: \$ 2 <= 00000000  
@000031e0: \$ 3 <= 00000000  
@000031e8: \$ 2 <= 00000000

@000031ec: \$ 2 <= 00000000  
@000031f8: \$ 1 <= 00000000  
@000031fc: \$ 3 <= 00080000  
@00003200: \$ 2 <= 00000000  
@00003204: \$ 4 <= 00000000  
@00003208: \$ 4 <= fff7ffff  
@00003210: \$ 3 <= fff7ffff  
@00003210: \$ 3 <= fff7ffff  
@00003214: \$ 4 <= 00000000  
@0000321c: \$ 3 <= 00000000  
@00003224: \$ 1 <= 000a0000  
@00003228: \$ 4 <= fff60000  
@0000322c: \$ 2 <= fff60000  
@00003234: \$ 4 <= fff60003  
@00003238: \$ 2 <= 00000000  
@00003244: \$ 2 <= 000f0000  
@00003248: \$ 4 <= 00000000  
@00003250: \$ 3 <= 000d0000  
@00003254: \$ 3 <= 000000d0  
@00003258: \$ 4 <= 00000003  
@00003260: \$ 3 <= 00000000  
@00003260: \$ 3 <= 00000000  
@00003264: \$ 3 <= 00020000  
@00003268: \$ 3 <= 00080000  
@0000326c: \$ 3 <= 0000000b  
@00003270: \$ 3 <= 00000000  
@00003274: \$ 2 <= 00000000  
@0000327c: \$ 2 <= 00000000  
@00003284: \$ 1 <= 00000007  
@00003290: \$ 4 <= 000a0000  
@00003294: \$ 1 <= 000f0000  
@000032ac: \$ 1 <= 000f0000  
@000032b0: \$ 3 <= 00000000  
@000032b4: \$ 2 <= 00000000  
@000032b8: \$ 1 <= 00040000  
@000032bc: \$ 3 <= 000d0000  
@000032c0: \$ 3 <= 00060000  
@000032d8: \$ 2 <= 00070000  
@000032e4: \$ 4 <= 00020000  
@000032f4: \$ 3 <= 00090000  
@00003304: \$ 1 <= 00000001  
@00003308: \$ 3 <= 00090005  
@0000330c: \$ 4 <= 00000001  
@00003318: \*00000000 <= 00000100

@00003324: \$ 2 <= fff8ffff  
@00003328: \$ 1 <= 00060000  
@0000332c: \$ 1 <= 00000000  
@00003330: \$ 4 <= 00000001  
@00003334: \$ 3 <= 00000100  
@00003340: \$ 1 <= 00000000  
@00003348: \*00000000 <= 00000100  
@0000334c: \$ 4 <= 00000100  
@00003350: \$ 3 <= 00000000  
@00003358: \$ 1 <= 00000000  
@00003360: \$ 1 <= 00000000  
@00003360: \$ 1 <= 00000000  
@00003364: \$ 3 <= 00000000  
@00003368: \$ 2 <= 00000100  
@0000336c: \$ 2 <= 00000001  
@00003374: \$ 4 <= 00000001  
@0000337c: \$ 4 <= 00000005  
@00003388: \$ 4 <= 000e0000  
@0000338c: \$ 3 <= 000e000c  
@0000339c: \$ 3 <= e000c000  
@000033a0: \$ 3 <= 00000000  
@000033a4: \$ 4 <= 00000000  
@000033a8: \$ 4 <= 00000000  
@000033ac: \$ 2 <= 00000000  
@000033b0: \$ 3 <= 00090000  
@000033b4: \$ 3 <= 000000c4  
@000033b8: \$ 2 <= 000e000c  
@000033d0: \$ 2 <= 00070006  
@000033d8: \$ 3 <= 00080000  
@000033e0: \$ 3 <= 00700060  
@000033e4: \$ 2 <= 00000000  
@000033ec: \$ 4 <= 000e000c  
@000033f0: \$ 2 <= 00007000  
@000033f4: \$ 1 <= 00000100  
@000033f8: \$ 3 <= 00000000  
@000033fc: \$ 2 <= 00070000  
@00003414: \$ 1 <= 00040000  
@00003418: \$ 1 <= 00000001  
@00003428: \$ 4 <= 00020000  
@00003430: \$ 3 <= 0002000e  
@00003440: \$ 3 <= 00020002  
@00003444: \$ 2 <= 00000001  
@00003458: \$ 2 <= 00000000  
@0000345c: \$ 4 <= 00000000

@00003464: \$ 4 <= 00000000  
@00003470: \$ 3 <= 00000100  
@00003474: \*00000000 <= 00000100  
@00003478: \*00000000 <= 00000100  
@0000347c: \*00000000 <= 00000000  
@00003490: \$ 4 <= 00000000  
@00003494: \$ 3 <= 00000000  
@000034a4: \$ 2 <= 00000000  
@000034ac: \$ 4 <= 00000000  
@000034b4: \$ 2 <= 00000000  
@000034b8: \$ 2 <= 000b0000  
@000034c8: \$ 3 <= 00090000  
@000034d4: \$ 2 <= 00000480  
@000034d8: \*00000000 <= 00090000  
@000034e4: \$ 1 <= 000f0000  
@000034ec: \$ 3 <= 00000000  
@000034f4: \$ 3 <= 00000480  
@000034fc: \$ 1 <= 00000000  
@00003500: \*00000000 <= 00000000  
@00003504: \$ 3 <= 00000000  
@00003508: \*00000000 <= 00000000  
@00003510: \$ 1 <= 00000000  
@00003510: \$ 1 <= 00000000  
@00003514: \*00000000 <= 00000000  
@00003518: \$ 2 <= 00000000  
@0000351c: \$ 1 <= 00000000  
@00003524: \$ 3 <= 00000000  
@0000352c: \$ 3 <= 00000000  
@00003534: \$ 2 <= 00000000  
@00003540: \$ 3 <= 00050000  
@00003544: \$ 2 <= 00000000  
@00003548: \$ 2 <= 00000000  
@0000354c: \$ 4 <= 00000005  
@00003550: \$ 1 <= 00000000  
@00003554: \$ 2 <= 00000000  
@00003560: \$ 2 <= 00000000  
@00003564: \*00000000 <= 00000000  
@00003568: \$ 1 <= 00000000  
@00003574: \$ 4 <= 00000000  
@0000357c: \$ 4 <= 00000000  
@00003580: \*00000000 <= 00000000  
@00003588: \$ 1 <= 00000000  
@0000358c: \$ 1 <= 00000000  
@00003590: \$ 3 <= 00000000

@00003598: \$ 1 <= 00000000  
@000035a0: \$ 3 <= 00000000  
@000035a4: \$ 1 <= 00000000  
@000035a8: \$ 3 <= 000a0000  
@000035b4: \$ 1 <= 000f0000  
@000035b8: \$ 4 <= 00000000  
@000035bc: \$ 2 <= 000a000b  
@000035c8: \$ 3 <= a000b000  
@000035cc: \$ 4 <= 00000001  
@000035d0: \$ 4 <= 00060000  
@000035e8: \$ 2 <= 00040000  
@000035f0: \$ 1 <= 00040000  
@000035f0: \$ 1 <= 00040000  
@000035f4: \$ 1 <= 00000001  
@000035f8: \$ 3 <= 000c0000  
@00003604: \$ 4 <= 00000000  
@00003608: \$ 2 <= 00000000  
@0000360c: \$ 3 <= 00060000  
@00003624: \$ 1 <= 00060000  
@00003628: \$ 4 <= 0006000c  
@00003634: \$ 1 <= 6000c000  
@0000363c: \$ 4 <= 90000000  
@00003648: \$ 2 <= 90000000  
@0000364c: \$ 1 <= 9000000d  
@00003660: \$ 4 <= 9000000e  
@00003684: \$ 3 <= 00000000  
@00003688: \$ 3 <= 00000000  
@00003690: \*00000000 <= 00000000  
@00003694: \$ 4 <= 00000000  
@00003698: \$ 4 <= 00000000  
@000036a0: \$ 3 <= 00000001  
@000036a4: \$ 1 <= 00080000  
@000036ac: \$ 3 <= 00000000  
@000036b0: \$ 1 <= ffffffff  
@000036b4: \$ 1 <= 00000000  
@000036b8: \$ 4 <= 00000000  
@000036bc: \$ 1 <= 000b0000  
@000036c8: \$ 1 <= 000d0000  
@000036cc: \$ 2 <= 00030000  
@000036d0: \$ 3 <= 00000180  
@000036d8: \$ 2 <= 00000000  
@000036e0: \$ 3 <= 00000000  
@000036e4: \$ 3 <= 000c0000  
@000036ec: \$ 3 <= 00000000

@000036f0: \$ 3 <= 000c0000  
@000036f8: \$ 3 <= 00000018  
@00003714: \*00000000 <= 00000000  
@00003718: \$ 4 <= 00000000  
@00003720: \$ 1 <= 00000000  
@00003720: \$ 1 <= 00000000  
@00003734: \*00000000 <= 00000000  
@0000373c: \$ 3 <= 00000000  
@00003748: \$ 1 <= 00000000  
@00003758: \$ 3 <= 00000000  
@0000375c: \$ 1 <= 00000000  
@00003760: \*00000000 <= 00000000  
@00003768: \$ 3 <= 00000000  
@00003774: \$ 4 <= 00090000  
@00003784: \$ 4 <= 00090000  
@00003790: \$ 3 <= 00000001  
@00003794: \$ 1 <= 00000000  
@00003798: \$ 3 <= 00000010  
@0000379c: \$ 3 <= 00000001  
@000037a0: \$ 3 <= 00000005  
@000037a4: \$ 1 <= 000c0000  
@000037a8: \$ 3 <= fffffffa  
@000037ac: \*00000000 <= 0000ffa  
@000037b0: \$ 4 <= 00000000  
@000037b4: \$ 3 <= 00000000  
@000037b8: \$ 4 <= 00000000  
@000037bc: \*00000000 <= 0000ff00  
@000037c0: \$ 3 <= 00000001  
@000037c4: \$ 4 <= 00000000  
@000037cc: \$ 4 <= 00000001  
@000037d0: \$ 1 <= 000a0000  
@000037d4: \*00000000 <= 00000100  
@000037d8: \$ 3 <= 000a0001  
@000037e0: \$ 4 <= 00000000  
@000037e0: \$ 4 <= 00000000  
@000037e4: \$ 2 <= 00000001  
@000037e8: \$ 2 <= 000a0006  
@000037ec: \$ 3 <= 00020000  
@000037f0: \$ 3 <= 00020000  
@000037f4: \$ 3 <= ffdffff  
@000037f8: \$ 1 <= 00000000  
@00003804: \*00000000 <= 00000100  
@00003808: \$ 3 <= 00000000  
@00003814: \$ 1 <= 00000000

@0000381c: \$ 2 <= 00010000  
@00003824: \$ 3 <= 000d0000  
@0000382c: \$ 2 <= 00000000  
@00003838: \*00000000 <= 00000000  
@0000383c: \$ 2 <= 00000000  
@00003844: \$ 2 <= 00000000  
@00003848: \$ 4 <= ffffffff  
@0000384c: \$ 1 <= ffffffff7  
@00003854: \$ 2 <= 000001ff  
@00003858: \*00000000 <= 000001ff  
@00003864: \$ 4 <= 00000000  
@00003870: \$ 4 <= 000001ff  
@00003874: \$ 4 <= 00000000  
@00003878: \$ 4 <= 000f0000  
@00003894: \$ 2 <= 000d0000  
@00003898: \$ 3 <= 00040000  
@000038a0: \$ 2 <= 000f0000  
@000038ac: \$ 3 <= fb800000  
@000038bc: \$ 1 <= fb800000  
@000038c0: \$ 3 <= 00000000  
@000038d0: \$ 1 <= 00000002  
@000038e4: \$ 4 <= 00000000  
@000038e8: \$ 1 <= 00000000  
@000038ec: \$ 3 <= 000001ff  
@000038f4: \$ 1 <= 000001ff  
@000038f8: \$ 1 <= 00030000  
@00003904: \$ 3 <= 00000000  
@0000390c: \$ 3 <= 00030004  
@00003914: \$ 3 <= 00003000  
@00003920: \$ 4 <= 00000000  
@00003928: \*00000000 <= 00000100  
@00003930: \*00000000 <= 00000100  
@00003934: \$ 2 <= 00003009  
@0000393c: \$ 3 <= 00006000  
@00003948: \$ 4 <= 00000100  
@0000394c: \$ 4 <= 00000000  
@00003954: \$ 3 <= 00000000  
@0000395c: \$ 1 <= 00000000  
@00003960: \$ 3 <= 00000000  
@00003964: \$ 2 <= 00000000  
@0000396c: \$ 2 <= 00070000  
@00003974: \$ 1 <= 00000000  
@00003978: \$ 3 <= 0000000b  
@00003980: \*00000008 <= 0b000007

@00003984: \$ 2 <= 00050000  
@00003990: \$ 4 <= 00010000  
@00003990: \$ 4 <= 00010000  
@00003994: \$ 1 <= 00050000  
@000039a0: \$ 3 <= 00050000  
@000039a4: \$ 2 <= 00000000  
@000039ac: \*00000000 <= 00000000  
@000039b8: \$ 4 <= 00000000  
@000039c0: \$ 2 <= 00000000  
@000039c0: \$ 2 <= 00000000  
@000039c4: \$ 2 <= 00000000  
@000039cc: \$ 4 <= 00000000  
@000039d0: \*00000000 <= 00000000  
@000039d4: \$ 2 <= 00000000  
@000039dc: \$ 1 <= 00000000  
@000039e4: \$ 3 <= 00000001  
@000039e8: \$ 4 <= 00000000  
@000039ec: \$ 4 <= 00000001  
@000039f4: \$ 1 <= 00000000  
@000039f8: \$ 1 <= 00000000  
@000039fc: \$ 4 <= 00000002  
@00003a04: \$ 4 <= 00000001  
@00003a08: \*00000000 <= 00000100  
@00003a0c: \$ 2 <= 00000001  
@00003a10: \*00000000 <= 00000100  
@00003a14: \$ 4 <= 00000001  
@00003a18: \$ 4 <= 00000001  
@00003a1c: \$ 2 <= 00090000  
@00003a20: \$ 4 <= 000c0000  
@00003a2c: \$ 3 <= 000c0007  
@00003a40: \$ 3 <= 00001800  
@00003a44: \$ 1 <= 00600000  
@00003a4c: \$ 4 <= 00001800  
@00003a54: \$ 1 <= 00001800  
@00003a60: \$ 4 <= 00000000  
@00003a64: \*00000000 <= 00000000  
@00003a68: \$ 1 <= ffffffff  
@00003a70: \*00000000 <= ffffffff  
@00003a78: \$ 4 <= 00000008  
@00003a80: \$ 1 <= 00000000  
@00003a84: \*00000000 <= ffff0008  
@00003a88: \$ 1 <= 00000000  
@00003a8c: \$ 2 <= 00000000  
@00003aa0: \$ 2 <= 0000000a



@00003aa4: \*00000008 <= 000a0007  
@00003aa8: \$ 4 <= 00030000  
@00003ab4: \$ 4 <= 00030005  
@00003ab8: \$ 3 <= 00030000  
@00003abc: \$ 4 <= 0000000a  
@00003ac0: \$ 1 <= 0000000a  
@00003ac8: \$ 4 <= 00000000  
@00003acc: \$ 3 <= 00000008  
@00003ad0: \$ 4 <= 00000000  
@00003ad4: \$ 2 <= 00000007  
@00003adc: \$ 2 <= 000b0000  
@00003ae0: \$ 3 <= 00160000  
@00003afc: \$ 2 <= 00160007  
@00003b00: \$ 1 <= 00000000  
@00003b04: \$ 3 <= 00000000  
@00003b08: \$ 4 <= 000d0000  
@00003b10: \$ 1 <= 000e0000  
@00003b1c: \$ 3 <= 000001c0  
@00003b24: \$ 1 <= 00000001  
@00003b30: \$ 1 <= 00070000  
@00003b34: \$ 4 <= 00000000  
@00003b3c: \$ 1 <= 00000009  
@00003b40: \$ 1 <= 00000000  
@00003b44: \$ 2 <= 00000004  
@00003b4c: \$ 2 <= 00000000  
@00003b58: \*00000000 <= ffff0000  
@00003b60: \$ 3 <= 000d0000  
@00003b60: \$ 3 <= 000d0000  
@00003b64: \$ 1 <= 00000000  
@00003b6c: \$ 2 <= 00000000  
@00003b70: \$ 2 <= 00000000  
@00003b7c: \$ 4 <= 00000000  
@00003b84: \$ 2 <= 00000000  
@00003b88: \$ 2 <= 00070000  
@00003b8c: \$ 3 <= 00000006  
@00003b94: \$ 3 <= 00000000  
@00003ba4: \$ 2 <= 00000000  
@00003ba8: \$ 3 <= 00000000  
@00003bb4: \$ 2 <= 00000000  
@00003bb8: \$ 1 <= 00000008  
@00003bbc: \$ 3 <= 00000000  
@00003bc0: \$ 4 <= 00000000  
@00003bc4: \$ 2 <= 00000000  
@00003bc8: \$ 2 <= 00040000

@00003bdc: \$ 1 <= 00040000  
@00003be0: \$ 1 <= 00000000  
@00003bf0: \$ 4 <= 00000000  
@00003bf8: \$ 2 <= ffff0000  
@00003bfc: \$ 3 <= ffff0000  
@00003c00: \$ 2 <= 00000000  
@00003c08: \$ 3 <= 00030000  
@00003c10: \$ 3 <= 00060000  
@00003c18: \$ 4 <= 00000000  
@00003c24: \$ 1 <= 000c0000  
@00003c28: \$ 3 <= 00000000  
@00003c2c: \$ 4 <= 00000000  
@00003c40: \$ 2 <= 00000000  
@00003c44: \$ 4 <= 00000000  
@00003c48: \$ 2 <= ffffffff  
@00003c54: \$ 3 <= ffffffff  
@00003c58: \$ 4 <= 00000000  
@00003c5c: \$ 3 <= fffffffe  
@00003c64: \$ 2 <= 00000000  
@00003c68: \$ 3 <= 00000000  
@00003c6c: \$ 1 <= 00000000  
@00003c70: \*00000000 <= 00000000  
@00003c78: \$ 4 <= 00000000  
@00003c80: \$ 3 <= 000d0000  
@00003c84: \*00000000 <= 00000000  
@00003c8c: \*00000000 <= 00000000  
@00003ca8: \$ 2 <= 000d0000  
@00003cb0: \$ 2 <= 00070000  
@00003cb8: \$ 2 <= 00050000  
@00003cbc: \$ 3 <= 00070000  
@00003ce0: \$ 4 <= 00000000  
@00003ce4: \$ 4 <= 00000000  
@00003ce8: \$ 1 <= 00000000  
@00003cec: \$ 1 <= 00000000  
@00003cf0: \$ 1 <= 00000000  
@00003cf4: \$ 4 <= 00000000  
@00003cf8: \$ 1 <= 00000000  
@00003d00: \$ 2 <= 00000000  
@00003d18: \*00000000 <= 00000000  
@00003d1c: \$ 1 <= 00000000  
@00003d20: \$ 3 <= 00000000  
@00003d30: \$ 2 <= 0000000a  
@00003d38: \$ 2 <= 0000000a  
@00003d40: \$ 3 <= 00000000

@00003d48: \$ 4 <= 0000000a  
@00003d4c: \$ 2 <= 0000000a  
@00003d54: \$ 1 <= 00028000  
@00003d58: \*00000008 <= 00000007  
@00003d64: \$ 1 <= 00000000  
@00003d68: \$ 1 <= 00000000  
@00003d6c: \*00000000 <= 00000000  
@00003d74: \$ 1 <= 00000000  
@00003d7c: \$ 4 <= 00000000  
@00003d80: \$ 2 <= 00000000  
@00003d84: \$ 4 <= 000c0000  
@00003d8c: \$ 1 <= 00030000  
@00003da0: \$ 4 <= 00060000  
@00003dbc: \$ 2 <= 00020000  
@00003dc4: \$ 2 <= 00000000  
@00003dcc: \$ 1 <= 00000000  
@00003dd0: \$ 4 <= 00010000  
@00003de0: \$ 2 <= 00000000  
@00003de4: \$ 4 <= 00050000  
@00003de8: \$ 3 <= 00090000  
@00003dec: \$ 4 <= 00070000  
@00003df8: \$ 3 <= 00070000  
@00003dfc: \$ 1 <= 0007000c  
@00003e18: \$ 3 <= 00020000  
@00003e30: \$ 3 <= 00000001  
@00003e34: \$ 1 <= 00000000  
@00003e38: \$ 1 <= 00000000  
@00003e3c: \$ 3 <= 00000000  
@00003e40: \$ 1 <= 00000000  
@00003e48: \$ 4 <= 00000000  
@00003e4c: \$ 2 <= 00000000  
@00003e50: \$ 2 <= 00000000  
@00003e54: \$ 2 <= 00040000  
@00003e64: \$ 2 <= 00000000  
@00003e6c: \*00000000 <= 00000000  
@00003e70: \*00000000 <= 00000000  
@00003e74: \$ 4 <= 00000000  
@00003e7c: \$ 1 <= 00000000  
@00003e80: \$ 1 <= 00000000  
@00003e84: \$ 2 <= 00000000  
@00003e88: \$ 4 <= 00000000  
@00003e94: \$ 4 <= 00000008  
@00003ea0: \$ 1 <= 00000001  
@00003ea4: \$ 1 <= 00000000

@00003eac: \$ 1 <= 00000000  
@00003edc: \$ 4 <= 00000000  
@00003ee4: \$ 3 <= 00000000  
@00003eec: \$ 3 <= 00000000  
@00003ef0: \$ 2 <= 00000000  
@00003ef4: \$ 3 <= 00000000  
@00003ef8: \$ 2 <= 00000000  
@00003efc: \$ 2 <= 00000000  
@00003f08: \$ 1 <= 00000000  
@00003f10: \*00000000 <= 00000000  
@00003f14: \$ 1 <= 00000008  
@00003f1c: \$ 2 <= 00000007  
@00003f20: \$ 4 <= 00030000  
@00003f24: \$ 4 <= 000f0000  
@00003f28: \*00000004 <= 00000007  
@00003f2c: \$ 3 <= 00000000  
@00003f30: \$ 1 <= 00000006  
@00003f34: \$ 3 <= 000e0000  
@00003f48: \$ 3 <= 000f0007  
@00003f4c: \$ 1 <= 00040000  
@00003f54: \$ 4 <= 00030000  
@00003f60: \$ 2 <= 00000000  
@00003f64: \$ 3 <= 00030003  
@00003f6c: \$ 3 <= 00030000  
@00003f70: \$ 3 <= 00030000  
@00003f74: \$ 2 <= 18000000  
@00003f78: \$ 4 <= 00000000  
@00003f7c: \$ 4 <= 00000000  
@00003f84: \*00000000 <= 00000000  
@00003f90: \$ 1 <= 00000000  
@00003f98: \$ 2 <= 00010000  
@00003f9c: \$ 2 <= 00000000  
@00003fa0: \$ 3 <= 00000000  
@00003fa8: \$ 2 <= 00000000  
@00003fb0: \$ 4 <= 00000000  
@00003fb4: \$ 2 <= 00000000  
@00003fb8: \$ 1 <= 00030000  
@00003fbc: \$ 2 <= 00000000  
@00003fc0: \*00000000 <= 00000000  
@00003fc4: \$ 2 <= 00000000  
@00003fc8: \*00000000 <= 00000000  
@00003fd0: \$ 2 <= 000e0000  
@00003fd0: \$ 2 <= 000e0000  
@00003fd8: \$ 2 <= 00000000

@00003fe8: \$ 3 <= 00000002  
@00003ff0: \$ 1 <= 00000000  
@00003ff4: \*00000000 <= 00000000  
@00003ff8: \$ 2 <= 00000000  
@00003ffc: \$ 1 <= 00000000  
@00004000: \$ 2 <= 00030000  
@00004004: \$ 2 <= 00000008  
@00004008: \$ 4 <= 00000000  
@0000400c: \$ 1 <= 000e0000  
@00004010: \$ 4 <= 00020000  
@00004024: \$ 1 <= 00000000  
@00004028: \$ 4 <= 00000000  
@00004034: \$ 4 <= 00000000  
@00004038: \$ 2 <= 00000000  
@0000403c: \*00000000 <= 00000000  
@00004048: \$ 2 <= 000c0000  
@0000404c: \$ 2 <= 00000000  
@00004050: \$ 3 <= 00000000  
@00004058: \$ 4 <= 00040000  
@00004068: \$ 2 <= 00030000  
@00004074: \$ 1 <= 00030009  
@00004084: \$ 4 <= 00030000  
@00004094: \*00000000 <= 00000000  
@000040a0: \$ 2 <= 000b0000  
@000040a4: \$ 1 <= 000b0008  
@000040b4: \$ 4 <= 00580000  
@000040bc: \$ 3 <= 00000001  
@000040c8: \$ 1 <= 00000001  
@000040cc: \$ 4 <= 00000000  
@000040d0: \$ 1 <= 000b0008  
@000040d4: \*00000000 <= 00000008  
@000040e4: \$ 3 <= 00000000  
@000040e8: \$ 4 <= 00000008  
@000040f0: \$ 2 <= 00000008  
@000040f0: \$ 2 <= 00000008  
@000040f4: \$ 4 <= 0000000d  
@000040f8: \*00000008 <= 0000000d  
@000040fc: \$ 3 <= 00000001  
@00004100: \$ 4 <= 00000000  
@00004104: \$ 2 <= 00040000  
@00004110: \$ 3 <= 000f0000  
@00004114: \$ 4 <= 000f0000  
@00004118: \$ 2 <= 000d0000  
@0000411c: \$ 2 <= 00000000

@00004120: \$ 4 <= 00000008  
@00004124: \$ 3 <= 000e0000  
@0000413c: \$ 3 <= 00000000  
@00004140: \$ 2 <= 00000008  
@0000414c: \$ 1 <= 00000008  
@00004154: \$ 1 <= 0000000d  
@00004168: \$ 2 <= 00000000  
@00004170: \$ 2 <= 000a0000  
@00004174: \$ 2 <= 000a0000  
@00004178: \$ 4 <= 0000000d  
@0000417c: \$ 2 <= 000b0000  
@00004184: \$ 2 <= 000d0000  
@0000418c: \$ 3 <= 00000008  
@00004198: \$ 2 <= 00000000  
@000041a0: \*00000000 <= 00000000  
@000041a4: \$ 1 <= 00000000  
@000041a8: \$ 3 <= 00000000  
@000041b0: \$ 3 <= 00000000  
@000041b0: \$ 3 <= 00000000  
@000041b4: \$ 1 <= 00000008  
@000041b8: \*00000000 <= 00000000  
@000041bc: \$ 3 <= 00000004  
@000041c0: \$ 4 <= 00050000  
@000041c4: \$ 1 <= 00005000  
@000041c8: \*00000004 <= 00050000  
@000041cc: \$ 4 <= 00000000  
@000041d0: \$ 4 <= 000a0000  
@000041dc: \$ 1 <= 00000000  
@000041e0: \$ 1 <= 00000000  
@000041e4: \$ 1 <= 00050000  
@000041f4: \$ 1 <= 00000000  
@000041f8: \$ 2 <= 00000001  
@00004200: \$ 2 <= 00000080  
@00004204: \$ 1 <= 00020000  
@0000420c: \$ 3 <= 00000080  
@00004210: \$ 2 <= 00000080  
@00004214: \$ 3 <= 00020000  
@00004220: \$ 2 <= 0002000b  
@00004230: \$ 2 <= 00028000  
@00004238: \$ 4 <= 00028000  
@00004260: \$ 2 <= 00028000  
@00004270: \$ 3 <= 00028000  
@00004278: \$ 3 <= 00050000  
@0000427c: \$ 4 <= fffaffff

@00004294: \$ 4 <= 00000000  
@000042a0: \$ 2 <= 00000000  
@000042a8: \$ 1 <= 00000000  
@000042b4: \$ 2 <= 00000000  
@000042bc: \$ 4 <= 000d0000  
@000042c4: \$ 2 <= 00000000  
@000042c8: \$ 3 <= 000d0000  
@000042cc: \$ 2 <= 00000000  
@000042d0: \*00000000 <= 00000000  
@000042d4: \$ 2 <= 00000000  
@000042f0: \$ 2 <= 00000000  
@000042f8: \$ 1 <= 00000000  
@000042fc: \$ 1 <= 00000000  
@00004300: \$ 1 <= 00000000  
@00004304: \*00000000 <= 00000000  
@00004310: \$ 2 <= 00000001  
@00004318: \*00000000 <= 00000001  
@00004320: \$ 1 <= 00000000  
@00004324: \$ 3 <= 00000001  
@00004330: \$ 3 <= 000c0000  
@0000433c: \$ 1 <= 00000001  
@00004340: \$ 2 <= 00000000  
@00004344: \$ 4 <= 00040000  
@0000434c: \$ 3 <= 00040000  
@00004350: \$ 3 <= 00050000  
@00004358: \$ 2 <= 000d0000  
@00004364: \$ 2 <= 000d0002  
@00004368: \$ 1 <= 00030000  
@0000436c: \$ 4 <= 000d000a  
@00004378: \$ 4 <= 000e0000  
@0000437c: \$ 3 <= 000d000a  
@00004380: \$ 3 <= 000d000a  
@00004388: \$ 4 <= 000000a9  
@00004398: \$ 2 <= 00000001  
@000043a8: \$ 3 <= 00040000  
@000043b0: \$ 2 <= 00000000  
@000043b8: \$ 1 <= fffc0000  
@000043c4: \$ 3 <= fff80010  
@000043cc: \$ 3 <= 00000000  
@000043d4: \$ 2 <= 00000000  
@000043d8: \$ 3 <= 00000000  
@000043dc: \*00000000 <= 00000000  
@000043e0: \$ 3 <= 00030000  
@00004404: \$ 1 <= 00000001

@0000440c: \$ 1 <= 00000002  
@00004414: \$ 3 <= 00000001  
@00004424: \$ 1 <= 00000001  
@00004428: \*00000000 <= 00000100  
@0000442c: \$ 2 <= 00000001  
@00004430: \$ 1 <= 000d0000  
@00004434: \$ 3 <= 000b0000  
@00004438: \$ 3 <= 00000001  
@0000443c: \$ 1 <= 00000001  
@00004440: \$ 2 <= 00000001  
@00004444: \*00000000 <= 00000100  
@00004448: \$ 4 <= 00060000  
@0000444c: \$ 2 <= 00000001  
@00004454: \*00000000 <= 00000100  
@00004458: \$ 1 <= 00000001  
@0000445c: \$ 4 <= 00000001  
@00004460: \$ 3 <= 00000009  
@00004468: \$ 4 <= 00000000  
@0000446c: \$ 3 <= 00000100  
@00004474: \$ 1 <= 00010000  
@00004478: \$ 3 <= 00000100  
@00004480: \$ 4 <= 00000200  
@00004488: \$ 2 <= 00000200  
@00004490: \*00000000 <= 00000200  
@00004498: \*00000000 <= 00000200  
@000044a8: \$ 1 <= 00000000  
@000044ac: \$ 3 <= 00000001  
@000044b0: \$ 1 <= 00000000  
@000044b4: \$ 2 <= 000a0000  
@000044b8: \$ 4 <= 00000000  
@000044bc: \$ 2 <= 000f0000  
@000044c0: \$ 4 <= 00030000  
@000044c4: \$ 4 <= fff0ffff  
@000044cc: \$ 3 <= ffffffff  
@000044d4: \$ 1 <= 00000001  
@000044e0: \$ 1 <= 001e0000  
@000044e8: \$ 3 <= 00000000  
@000044ec: \$ 4 <= 00030000  
@000044f0: \$ 1 <= 00000001  
@000044fc: \$ 3 <= 00000001  
@00004500: \$ 4 <= 00000080  
@00004504: \$ 2 <= 00000000  
@00004508: \$ 4 <= fffff81  
@00004510: \$ 4 <= 00020000



@0000451c: \$ 2 <= 00000000  
@00004520: \$ 1 <= 000c0000  
@00004524: \$ 4 <= 00080000  
@00004538: \$ 4 <= 00080007  
@00004550: \$ 1 <= 00080000  
@00004558: \$ 3 <= 00070000  
@0000455c: \$ 2 <= 00000000  
@00004560: \$ 3 <= 00000000  
@00004564: \$ 4 <= 000d0000  
@00004568: \$ 2 <= 00000000  
@0000456c: \*00000000 <= 00000200  
@00004570: \*00000000 <= 00000200  
@00004574: \$ 4 <= 00000000  
@00004578: \$ 1 <= 00000000  
@0000457c: \$ 3 <= 00000003  
@00004584: \$ 3 <= 00000060  
@00004588: \$ 3 <= 00000060  
@00004590: \$ 4 <= 00000060  
@00004594: \$ 4 <= 000d0000  
@0000459c: \$ 4 <= 00060000  
@000045ac: \$ 3 <= 00000000  
@000045b8: \$ 4 <= 00000000  
@000045bc: \$ 3 <= 00030000  
@000045c0: \$ 1 <= 0003000f  
@000045dc: \$ 1 <= fffd0000  
@000045e4: \$ 3 <= fffd0000  
@000045e8: \$ 2 <= 00050000  
@000045ec: \$ 4 <= 00000000  
@000045f0: \$ 4 <= 00020000  
@000045fc: \$ 2 <= 00000000  
@00004600: \*00000000 <= 00000000  
@00004604: \$ 2 <= 000b0000  
@0000460c: \$ 4 <= 00000000  
@00004610: \*00000000 <= 00000000  
@00004614: \*00000000 <= 00000000  
@00004618: \*00000000 <= 00000000  
@00004624: \$ 1 <= 00000000  
@00004628: \$ 2 <= 00000007  
@0000462c: \$ 2 <= 00000000  
@00004630: \$ 2 <= 00000000  
@00004634: \$ 1 <= 00000000  
@00004638: \$ 1 <= 00000000  
@0000463c: \*00000000 <= 00000000  
@00004640: \*00000000 <= 00000000

@00004648: \*00000000 <= 00000000  
@00004650: \$ 1 <= 00000000  
@00004654: \$ 3 <= 00000000  
@00004658: \$ 1 <= 00000006  
@0000465c: \$ 2 <= 00090000  
@00004664: \$ 1 <= 00000000  
@0000466c: \*00000000 <= 00000000  
@00004670: \$ 3 <= 00000000  
@00004678: \$ 4 <= 00080000  
@00004688: \*00000000 <= 00000000  
@0000468c: \$ 3 <= 00000001  
@00004694: \$ 4 <= 000b0000  
@000046a0: \$ 2 <= 00000000  
@000046a8: \$ 1 <= 2c000000  
@000046ac: \$ 2 <= 00000000  
@000046b0: \*00000000 <= 00000000  
@000046b4: \$ 2 <= 00000000  
@000046b8: \$ 2 <= 00000000  
@000046c0: \*00000000 <= 00000000  
@000046c4: \$ 2 <= 000f0000  
@000046c8: \$ 1 <= 00000000  
@000046d8: \$ 1 <= 00000000  
@000046dc: \$ 2 <= 000e0000  
@000046e0: \$ 2 <= 00040000  
@000046e4: \$ 3 <= 00000000  
@000046e8: \$ 4 <= 00000000  
@000046ec: \$ 1 <= 00000000  
@000046f0: \$ 4 <= 00000000  
@000046fc: \*00000000 <= 00000000  
@00004704: \$ 3 <= 00000000  
@00004710: \$ 3 <= 00000000  
@00004714: \$ 3 <= 00000000  
@00004718: \$ 4 <= 00000000  
@00004730: \$ 4 <= 000d0000  
@00004738: \$ 4 <= 000e0000  
@00004748: \$ 3 <= 00000001  
@0000474c: \$ 2 <= 00030000  
@00004754: \$ 2 <= 000e0000  
@00004764: \$ 3 <= 00000000  
@00004774: \*00000000 <= 00000000  
@00004780: \$ 3 <= 0000000c  
@00004784: \$ 2 <= 00000000  
@00004788: \$ 3 <= 00080000  
@00004798: \$ 2 <= 00000000

@000047a0: \$ 1 <= 00090000  
@000047a8: \*00000000 <= 00000000  
@000047b0: \$ 4 <= 000e0000  
@000047bc: \$ 3 <= 00000000  
@000047c0: \*00000000 <= 00000000  
@000047c8: \*00000000 <= 00000000  
@000047d0: \$ 3 <= 00000000  
@000047d4: \$ 2 <= 00000000  
@000047d8: \$ 4 <= 0000000c  
@000047e0: \$ 1 <= 00000000  
@000047e0: \$ 1 <= 00000000  
@000047e4: \$ 1 <= 00000001  
@000047e8: \*00000000 <= 00000c00  
@000047f4: \$ 1 <= 00000000  
@00004800: \*00000000 <= 00000000  
@00004800: \*00000000 <= 00000000  
@00004804: \$ 4 <= 00000000  
@00004808: \*00000000 <= 00000000  
@0000480c: \$ 4 <= 00000000  
@00004810: \$ 3 <= 00000000  
@00004814: \*00000000 <= 00000000  
@00004818: \$ 2 <= 00000001  
@00004820: \$ 4 <= 00000002  
@00004824: \$ 1 <= 00000001  
@00004828: \$ 3 <= 00000000  
@00004830: \$ 3 <= 00000000  
@00004830: \$ 3 <= 00000000  
@00004834: \*00000000 <= 00000000  
@00004838: \$ 2 <= 00000000  
@0000483c: \$ 1 <= 00000000  
@00004840: \$ 3 <= 00000000  
@00004844: \$ 2 <= 00000000  
@0000484c: \$ 3 <= 00000000  
@00004850: \$ 3 <= 00000001  
@00004854: \$ 1 <= 00000000  
@0000485c: \$ 1 <= fffffffe  
@00004860: \$ 1 <= 00000006  
@00004864: \$ 3 <= 00000000  
@0000486c: \$ 2 <= 00020000  
@00004870: \$ 2 <= 00020003  
@0000487c: \$ 4 <= 00000000  
@00004880: \$ 3 <= 00070000  
@00004884: \$ 4 <= 00000000  
@00004894: \$ 1 <= 00000001

@00004898: \$ 1 <= 000a0000  
@0000489c: \$ 2 <= 00000000  
@000048a0: \$ 3 <= 000e0000  
@000048a8: \$ 1 <= 00020000  
@000048ac: \$ 3 <= 000e0000  
@000048b8: \$ 3 <= 00000000  
@000048bc: \*00000000 <= 00000000  
@000048cc: \$ 1 <= 00000000  
@000048d0: \$ 1 <= 00000000  
@000048d8: \$ 4 <= 00000000  
@000048e0: \$ 4 <= 00000000  
@000048e0: \$ 4 <= 00000000  
@000048e8: \$ 1 <= 00000000  
@000048ec: \$ 1 <= 0000000b  
@000048f0: \$ 3 <= 00000000  
@000048f4: \$ 4 <= 00000001  
@000048f8: \*00000000 <= 00000b00  
@00004904: \$ 4 <= 00000007  
@0000490c: \$ 3 <= 00000007  
@00004910: \$ 1 <= 00000031  
@00004920: \$ 1 <= 00031000  
@00004924: \$ 1 <= 000d0000  
@00004930: \$ 4 <= 00000000  
@00004934: \$ 3 <= 00000000  
@00004938: \$ 2 <= 00000000  
@0000493c: \$ 3 <= 000000a9  
@00004944: \$ 4 <= 00000b00  
@00004948: \$ 2 <= 00000b06  
@0000494c: \$ 4 <= 00000b00  
@00004954: \$ 3 <= 000000a9  
@0000496c: \$ 3 <= 00000b00  
@00004974: \*00000000 <= 00000b00  
@00004984: \*00000000 <= 00000b00  
@00004988: \$ 2 <= 00000000  
@0000498c: \$ 2 <= 000a0000  
@00004990: \$ 4 <= 00000b00  
@00004994: \$ 4 <= fff5f4ff  
@000049a0: \$ 4 <= 80000000  
@000049a4: \$ 4 <= 80000000  
@000049a8: \$ 4 <= 000c0000  
@000049b4: \$ 2 <= 00000b00  
@000049b8: \*00000000 <= 00000b00  
@000049bc: \$ 2 <= 00000b00  
@000049c0: \$ 3 <= 00000000

@000049c4: \$ 4 <= 00000b00  
@000049c8: \$ 4 <= 00000b01  
@000049cc: \$ 4 <= 00000b00  
@000049d0: \$ 4 <= 00001600  
@000049d4: \$ 4 <= 00000000  
@000049dc: \$ 2 <= 00000000  
@000049e0: \$ 3 <= 00000005  
@000049e4: \$ 1 <= 00000002  
@000049e8: \*00000000 <= 00050b00  
@000049f0: \*00000000 <= 00020b00  
@000049f8: \$ 2 <= 00000000  
@000049fc: \$ 3 <= 00000004  
@00004a00: \$ 3 <= 00000004  
@00004a04: \$ 4 <= 00000000  
@00004a08: \$ 4 <= 00000004  
@00004a0c: \$ 3 <= 00004000  
@00004a10: \$ 1 <= 00000000  
@00004a14: \$ 4 <= 00004000  
@00004a18: \$ 2 <= 000f0000  
@00004a1c: \$ 3 <= 00004000  
@00004a20: \$ 2 <= 00000004  
@00004a30: \$ 3 <= 00000000  
@00004a30: \$ 3 <= 00000000  
@00004a34: \$ 1 <= 00000000  
@00004a38: \$ 1 <= 00000000  
@00004a3c: \$ 4 <= 00040000  
@00004a4c: \$ 3 <= 00000000  
@00004a50: \$ 3 <= 00000000  
@00004a58: \$ 1 <= 000e0000  
@00004a64: \$ 3 <= 00000001  
@00004a6c: \$ 3 <= 00010000  
@00004a78: \$ 1 <= fffeffffb  
@00004aa0: \$ 3 <= 00070000  
@00004aa8: \$ 1 <= 00000000  
@00004ab4: \$ 2 <= 00000b00  
@00004ac0: \$ 4 <= 00000001  
@00004acc: \$ 4 <= 00070000  
@00004ad0: \$ 4 <= 000001c0  
@00004ad4: \$ 1 <= 00080000  
@00004adc: \$ 4 <= 000001c1  
@00004ae0: \$ 3 <= 00000382  
@00004af4: \$ 2 <= 00000000  
@00004b04: \$ 2 <= 00020b00  
@00004b1c: \$ 4 <= 00000002

@00004b20: \$ 1 <= 00000004  
@00004b28: \$ 3 <= 00000002  
@00004b2c: \$ 1 <= 00050000  
@00004b3c: \$ 2 <= 00000001  
@00004b44: \$ 1 <= 00000001  
@00004b4c: \$ 1 <= 00000000  
@00004b50: \$ 4 <= ffffffff  
@00004b60: \*00000000 <= 00020bff  
@00004b64: \*00000000 <= 00020bff  
@00004b70: \$ 4 <= 00000008  
@00004b74: \$ 3 <= 0000000f  
@00004b7c: \$ 4 <= 00000010  
@00004b88: \*00000010 <= 00000010  
@00004b94: \$ 1 <= 00000000  
@00004b98: \$ 3 <= 00000010  
@00004ba0: \*00000010 <= 00000010  
@00004ba4: \$ 3 <= 00000000  
@00004ba8: \$ 1 <= ffffffff  
@00004bac: \$ 3 <= ffffffff  
@00004bb0: \*00000000 <= 00020bff  
@00004bb4: \$ 2 <= 00000000  
@00004bb8: \*00000000 <= 00020b00  
@00004bbc: \$ 1 <= 00000b00  
@00004bc8: \$ 2 <= 000a0000  
@00004bd8: \$ 4 <= 00000000  
@00004be0: \$ 1 <= 00000000  
@00004be4: \$ 4 <= 000f0000  
@00004bec: \$ 1 <= 00000000  
@00004bf0: \$ 2 <= 00000b00  
@00004bf4: \$ 3 <= 00050000  
@00004bfc: \$ 1 <= 00000000  
@00004c00: \$ 1 <= 00000000  
@00004c04: \*00000000 <= 00000000  
@00004c0c: \*00000000 <= 00000000  
@00004c10: \$ 3 <= 00000000  
@00004c14: \*00000000 <= 00000000  
@00004c1c: \$ 1 <= 00000000  
@00004c20: \$ 2 <= 00000000  
@00004c24: \*00000000 <= 00000000  
@00004c28: \$ 2 <= 00000000  
@00004c2c: \$ 1 <= 00020000  
@00004c30: \$ 1 <= 00000000  
@00004c38: \$ 2 <= 00000000  
@00004c3c: \$ 3 <= 00000000

@00004c40: \*00000000 <= 00000000  
@00004c48: \$ 2 <= 00000000  
@00004c4c: \$ 4 <= ffffffff  
@00004c50: \*00000000 <= 0000ffff  
@00004c54: \$ 2 <= 00000000  
@00004c58: \$ 2 <= 00000000  
@00004c64: \$ 1 <= 000e0000  
@00004c88: \$ 1 <= ffffffff  
@00004c90: \$ 3 <= 000c0000  
@00004c90: \$ 3 <= 000c0000  
@00004c94: \$ 1 <= 00030000  
@00004c98: \$ 3 <= 00000000  
@00004c9c: \$ 3 <= fffd0000  
@00004ca4: \$ 4 <= 00000000  
@00004cac: \$ 4 <= 000f0000  
@00004cbc: \$ 2 <= 00000001  
@00004cd4: \$ 2 <= 00000001  
@00004cd8: \$ 4 <= 00000001  
@00004ce4: \$ 2 <= 00000001  
@00004ce8: \$ 1 <= 000b0000  
@00004cec: \$ 1 <= 00058000  
@00004cfc: \$ 3 <= 00000000  
@00004d00: \$ 1 <= 0000ffff  
@00004d0c: \$ 1 <= 0000ffff  
@00004d14: \$ 2 <= 00020000  
@00004d18: \$ 1 <= 00000001  
@00004d24: \$ 3 <= 00000008  
@00004d30: \$ 1 <= 000e0000  
@00004d34: \$ 3 <= 000e0000  
@00004d38: \$ 4 <= 00000000  
@00004d40: \$ 1 <= 00000008  
@00004d44: \$ 1 <= 0000000c  
@00004d4c: \$ 1 <= 00000008  
@00004d50: \$ 1 <= 00010000  
@00004d58: \$ 3 <= 00000008  
@00004d60: \$ 3 <= 000c0000  
@00004d64: \$ 2 <= 000a0000  
@00004d6c: \$ 1 <= 00000000  
@00004d70: \$ 4 <= 00000009  
@00004d7c: \$ 4 <= 00070000  
@00004d94: \$ 3 <= 00090000  
@00004d98: \$ 2 <= 00070000  
@00004d9c: \$ 3 <= 00010000  
@00004db8: \$ 1 <= 00000000

@00004dbc: \$ 2 <= 00000000  
@00004dc0: \$ 3 <= 00050000  
@00004dcc: \$ 2 <= 00000000  
@00004dd0: \$ 2 <= 000f0000  
@00004ddc: \$ 4 <= 00000000  
@00004de0: \$ 3 <= 00000000  
@00004dec: \$ 2 <= ffffffff  
@00004df0: \*00000000 <= ffffffff  
@00004df4: \$ 2 <= 000a0000  
@00004df8: \$ 2 <= 00000000  
@00004dfc: \*00000000 <= ffffff00  
@00004e14: \$ 2 <= 00000000  
@00004e24: \$ 1 <= 00000000  
@00004e2c: \$ 2 <= 00040000  
@00004e44: \$ 4 <= 00800000  
@00004e5c: \$ 2 <= 000a0000  
@00004e64: \$ 2 <= 00140000  
@00004e6c: \$ 3 <= 00090000  
@00004e80: \$ 1 <= ff7fffff  
@00004e88: \$ 1 <= 0080000b  
@00004e94: \$ 2 <= 00090000  
@00004ea8: \$ 1 <= 00000000  
@00004eb4: \$ 2 <= 00000000  
@00004eb8: \$ 2 <= 00000000  
@00004ec0: \*00000000 <= ffffff00  
@00004ec4: \*00000000 <= 00000000  
@00004ed0: \$ 3 <= 000a0000  
@00004ed8: \$ 2 <= 00080000  
@00004ee4: \$ 2 <= 00000000  
@00004eec: \$ 1 <= 00800000  
@00004ef8: \$ 1 <= 00000000  
@00004f04: \$ 3 <= 00000000  
@00004f0c: \$ 2 <= 00000000  
@00004f14: \$ 4 <= 00000000  
@00004f18: \$ 3 <= 00000000  
@00004f1c: \$ 4 <= 00000000  
@00004f24: \$ 4 <= 00000000  
@00004f28: \$ 2 <= 00090000  
@00004f38: \$ 2 <= 0009000f  
@00004f40: \$ 4 <= 00000001  
@00004f40: \$ 4 <= 00000001  
@00004f44: \*00000000 <= 00000100  
@00004f4c: \$ 3 <= 00000000  
@00004f54: \$ 3 <= 00030000



@00004f58: \$ 1 <= 0003000b  
@00004f5c: \$ 4 <= 00030005  
@00004f60: \$ 1 <= 00000000  
@00004f70: \$ 2 <= 000b0000  
@00004f74: \$ 1 <= 00160000  
@00004f80: \$ 4 <= 000b0002  
@00004f84: \$ 1 <= 00000000  
@00004f8c: \$ 3 <= 00000000  
@00004f94: \$ 1 <= 0000000a  
@00004f98: \$ 3 <= 00070000  
@00004f9c: \$ 2 <= 0006ffff  
@00004fa4: \$ 2 <= 0006ffff  
@00004fb4: \$ 1 <= 00040000  
@00004fb8: \$ 4 <= 00090000  
@00004fbc: \$ 2 <= 00090000  
@00004fd0: \$ 1 <= 00000000  
@00004fd4: \$ 4 <= 00090000  
@00004fd8: \*00000000 <= 00000000  
@00004fec: \$ 3 <= fff6ffff  
@00004ff0: \$ 3 <= 000b0000  
@00004ff8: \$ 1 <= 00090000  
@00005004: \$ 3 <= 00000001  
@00005008: \$ 1 <= 00000000  
@0000500c: \$ 2 <= 00000000  
@00005014: \$ 3 <= 00000000  
@00005018: \$ 4 <= 00090000  
@0000501c: \*00000000 <= 00000000  
@00005028: \$ 1 <= 00050000  
@0000502c: \$ 3 <= fffc0000  
@00005034: \$ 3 <= 00000001  
@00005038: \*00000000 <= 00000100  
@0000503c: \*00000000 <= 00000100  
@00005040: \$ 3 <= 0000000f  
@00005048: \$ 2 <= 00000000  
@00005050: \$ 4 <= 00000000  
@00005058: \*00000000 <= 00000000  
@00005060: \$ 3 <= 00000000  
@00005060: \$ 3 <= 00000000  
@00005064: \$ 4 <= 00000000  
@00005068: \$ 3 <= 00000000  
@0000506c: \*00000000 <= 00000000  
@00005070: \$ 1 <= 00010000  
@00005074: \$ 3 <= 00000006  
@0000507c: \$ 1 <= 00000000

@00005084: \$ 1 <= 00090000  
@00005094: \$ 3 <= 0000000f  
@000050a0: \$ 2 <= 0000001d  
@000050a4: \$ 4 <= 00000000  
@000050a8: \$ 3 <= 0000000f  
@000050ac: \$ 3 <= 00000000  
@000050b0: \$ 4 <= 00000000  
@000050b4: \$ 3 <= 00000000  
@000050c4: \$ 1 <= 00000000  
@000050cc: \$ 3 <= 00000000  
@000050d0: \$ 4 <= 00000000  
@000050d4: \$ 1 <= ffffffff  
@000050d8: \$ 4 <= 00000000  
@000050dc: \$ 3 <= 00000000  
@000050f0: \$ 2 <= 00000000  
@000050f4: \$ 2 <= 00000000  
@000050fc: \*00000000 <= 00000000  
@00005104: \*00000000 <= 00000000  
@00005110: \$ 4 <= 00080000  
@00005128: \$ 4 <= 00080000  
@0000513c: \$ 4 <= 000b0000  
@00005154: \$ 4 <= 00000000  
@0000515c: \$ 3 <= 00080000  
@00005164: \$ 2 <= 00080003  
@00005168: \$ 2 <= 00010000  
@0000516c: \$ 4 <= ffffffff  
@00005170: \$ 1 <= 00080000  
@00005174: \$ 1 <= 00000005  
@00005178: \$ 4 <= ffffffff  
@0000517c: \$ 1 <= ffffffff  
@00005180: \*00000000 <= ffffffff  
@00005184: \$ 2 <= ffffffff  
@0000518c: \$ 3 <= 00070000  
@000051a4: \$ 3 <= ffffffff  
@000051ac: \$ 4 <= 00010000  
@000051b4: \$ 2 <= 80000000  
@000051b8: \$ 2 <= 00000001  
@000051bc: \$ 1 <= 00010002  
@000051d0: \$ 1 <= 0001000f  
@000051d4: \$ 2 <= 00070000  
@000051d8: \$ 2 <= 00000000  
@000051e0: \$ 3 <= 00000000  
@000051e4: \$ 3 <= 00030000  
@000051f8: \$ 1 <= 00000000

@00005208: \$ 4 <= 00000000  
@0000520c: \$ 4 <= 00000000  
@00005214: \$ 2 <= fffffffe  
@00005218: \$ 4 <= 00000000  
@00005220: \$ 4 <= 00000000  
@00005224: \$ 1 <= 00000000  
@0000522c: \$ 4 <= 00020000  
@00005230: \$ 3 <= 00060000  
@00005244: \$ 2 <= 00060000  
@0000524c: \$ 1 <= 00000000  
@00005250: \$ 4 <= 00000000  
@00005254: \$ 1 <= 00000000  
@00005260: \$ 2 <= 00000000  
@00005260: \$ 2 <= 00000000  
@00005264: \$ 2 <= 00000000  
@00005268: \$ 3 <= 00000000  
@00005270: \$ 2 <= 00050000  
@00005278: \$ 3 <= 00050009  
@00005294: \$ 1 <= 00050000  
@00005298: \$ 3 <= 000a0000  
@0000529c: \$ 2 <= fff0ffff  
@000052a4: \$ 1 <= fff10005  
@000052ac: \$ 1 <= 00060000  
@000052cc: \$ 2 <= 00000001  
@000052d0: \*00000000 <= ffff01fe  
@000052d8: \$ 2 <= 00000001  
@000052e4: \$ 3 <= 000a0000  
@000052e8: \$ 4 <= 000a0001  
@000052ec: \$ 2 <= 00000000  
@000052f0: \$ 4 <= fffffffe  
@000052f4: \$ 2 <= 00000000  
@00005300: \*00000000 <= ffff0100  
@00005304: \$ 2 <= 000b0000  
@00005308: \$ 2 <= 00000000  
@00005310: \$ 1 <= 00000000  
@00005318: \$ 2 <= 00000000  
@00005330: \$ 2 <= ffffff00  
@00005334: \*00000000 <= fffffffe  
@00005338: \$ 4 <= 00000000  
@0000533c: \$ 3 <= fffffffe  
@00005340: \$ 3 <= 00000001  
@0000534c: \$ 4 <= 00000000  
@00005350: \$ 2 <= 00000000  
@00005354: \$ 3 <= 00000000

@0000535c: \*00000000 <= ffff0000  
@00005364: \$ 1 <= 00000000  
@00005368: \$ 2 <= ffffffff  
@00005374: \$ 3 <= 00000000  
@00005378: \$ 1 <= 000c0000  
@0000537c: \$ 4 <= 00000000  
@00005380: \$ 4 <= 00000000  
@00005388: \$ 3 <= 00000009  
@00005390: \$ 1 <= 00000012  
@00005394: \$ 4 <= fffffff6  
@00005398: \$ 3 <= ffffffff  
@000053a4: \$ 3 <= ffffffff  
@000053a8: \$ 3 <= 0003ffff  
@000053b0: \$ 1 <= fffffffe  
@000053b4: \$ 3 <= 00000000  
@000053b8: \$ 1 <= 00000004  
@000053c0: \*00000004 <= 00050004  
@000053c4: \$ 4 <= 00000000  
@000053c8: \$ 1 <= 00000000  
@000053d0: \$ 2 <= 00000000  
@000053d0: \$ 2 <= 00000000  
@000053d4: \*00000000 <= 00000000  
@000053dc: \$ 4 <= 00090000  
@000053e0: \$ 4 <= 000d0000  
@000053e8: \$ 4 <= 00000000  
@000053f0: \$ 1 <= 00000000  
@000053f4: \$ 2 <= 00000000  
@00005408: \$ 1 <= 00000000  
@0000540c: \$ 2 <= 00020000  
@00005410: \$ 4 <= 00020000  
@0000541c: \$ 3 <= 00020000  
@00005424: \$ 1 <= 00000000  
@00005428: \$ 2 <= 00020000  
@00005438: \$ 3 <= 00000000  
@00005444: \$ 2 <= 00000001  
@00005468: \$ 2 <= 00080000  
@00005470: \$ 1 <= 00080000  
@00005478: \$ 2 <= 00000001  
@00005480: \$ 1 <= 00000002  
@00005480: \$ 1 <= 00000002  
@00005488: \$ 3 <= 00000002  
@000054a0: \$ 2 <= 00000000  
@000054a0: \$ 2 <= 00000000  
@000054a4: \$ 2 <= 00060000

@000054ac: \$ 4 <= 00000000  
@000054b0: \$ 4 <= 000a0000  
@000054bc: \$ 1 <= 000a0002  
@000054cc: \$ 4 <= 00000000  
@000054d0: \*00000000 <= 00000000  
@000054d8: \$ 3 <= 00000000  
@000054e0: \$ 3 <= 00030000  
@000054e4: \$ 4 <= 00030000  
@000054f0: \$ 2 <= 00070000  
@000054f4: \$ 2 <= 00000064  
@000054fc: \$ 1 <= 00000009  
@00005500: \*00000008 <= 0000090d  
@00005504: \$ 1 <= 00002710  
@00005508: \*00000000 <= 00002710  
@00005510: \*00000000 <= 00002710  
@00005510: \*00000000 <= 00002710  
@00005518: \$ 2 <= 00002710  
@0000551c: \$ 3 <= 00000000  
@00005520: \$ 4 <= 00000010  
@00005528: \$ 2 <= 00000000  
@0000552c: \$ 4 <= 00000001  
@00005530: \$ 2 <= 00000000  
@00005534: \$ 4 <= 00000001  
@0000553c: \$ 3 <= 00060000  
@00005544: \$ 4 <= 00002710  
@00005548: \$ 4 <= 00000010  
@00005550: \*00000010 <= 00000010  
@0000555c: \$ 2 <= 00000000  
@00005568: \$ 2 <= 00000000  
@00005574: \$ 1 <= 00000000  
@0000557c: \$ 4 <= 00000000  
@00005580: \$ 3 <= 00000000  
@00005584: \$ 3 <= 00000000  
@0000558c: \$ 1 <= 00000000  
@000055a0: \$ 3 <= 00000000  
@000055a4: \$ 1 <= 00002710  
@000055ac: \$ 4 <= 00000000  
@000055b0: \$ 2 <= 00030000  
@000055b8: \$ 4 <= 00030000  
@000055c0: \$ 4 <= 00000000  
@000055c8: \$ 4 <= 000e0000  
@000055d8: \$ 1 <= 00000000  
@000055e8: \$ 2 <= 00000000  
@000055f8: \$ 2 <= 00000000

@000055fc: \*00000000 <= 00000000  
@00005600: \*00000000 <= 00000000  
@00005608: \$ 1 <= 00000000  
@0000560c: \*00000000 <= 00000000  
@0000561c: \$ 2 <= 000b0000  
@00005628: \$ 2 <= 000c0000  
@00005634: \$ 1 <= 00000000  
@0000563c: \*00000000 <= 00000000  
@00005640: \$ 1 <= 00000000  
@00005648: \*00000000 <= 00000000  
@0000564c: \$ 3 <= ffffffff  
@00005658: \$ 2 <= 00000000  
@0000565c: \$ 3 <= 00000001  
@00005664: \$ 1 <= 00000000  
@00005668: \$ 2 <= 00000000  
@0000566c: \$ 3 <= 00000001  
@00005674: \$ 2 <= 00000000  
@00005678: \$ 4 <= 00000001  
@00005680: \*00000000 <= 00000100  
@00005680: \*00000000 <= 00000100  
@00005690: \*00000000 <= 00000100  
@00005694: \*00000000 <= 00000100  
@00005698: \*00000000 <= 00000100  
@0000569c: \$ 2 <= 00000001  
@000056a0: \$ 3 <= 00000001  
@000056a8: \$ 2 <= 00060000  
@000056b0: \$ 1 <= 00030000  
@000056b0: \$ 1 <= 00030000  
@000056b8: \$ 3 <= 00000001  
@000056c0: \$ 4 <= 00000000  
@000056c0: \$ 4 <= 00000000  
@000056c4: \*00000000 <= 00000100  
@000056c8: \$ 2 <= fffffffe  
@000056cc: \$ 2 <= 00000001  
@000056d0: \$ 4 <= 00070000  
@000056d4: \$ 2 <= 00000001  
@000056d8: \$ 1 <= 00000001  
@000056dc: \$ 3 <= 00000001  
@000056e0: \$ 4 <= 00000000  
@000056e4: \$ 3 <= 00080000  
@000056f8: \$ 4 <= 00000000  
@00005700: \$ 3 <= 00000100  
@00005708: \$ 4 <= 00000100  
@0000570c: \$ 1 <= 00000000

@00005714: \$ 4 <= 00000000  
@00005718: \$ 4 <= 00000100  
@00005720: \*00000000 <= 00000100  
@00005720: \*00000000 <= 00000100  
@00005724: \$ 1 <= 000f0000  
@0000572c: \*00000000 <= 00000000  
@00005734: \$ 4 <= 001e0000  
@00005738: \$ 4 <= 000f0000  
@0000573c: \$ 1 <= 001e0000  
@00005740: \$ 3 <= 00000000  
@00005744: \$ 1 <= 001e0000  
@0000574c: \$ 2 <= 001e0005  
@00005750: \$ 2 <= 00000000  
@00005760: \$ 3 <= 00000000  
@00005768: \$ 3 <= 00000003  
@0000576c: \*00000000 <= 00000000  
@00005770: \$ 3 <= 00000000  
@00005778: \$ 1 <= 00000000  
@00005780: \$ 1 <= 00000000  
@00005788: \*00000000 <= 00000000  
@00005790: \$ 1 <= 00000000  
@00005790: \$ 1 <= 00000000  
@00005794: \$ 3 <= 00090000  
@00005798: \$ 3 <= 00000000  
@0000579c: \$ 3 <= 00000000  
@000057a0: \$ 1 <= 00000000  
@000057a4: \$ 2 <= 00000000  
@000057a8: \$ 2 <= 00000000  
@000057ac: \$ 2 <= 00040000  
@000057b0: \$ 4 <= 00090000  
@000057b4: \$ 3 <= 00090005  
@000057c0: \$ 4 <= 00000000  
@000057c4: \$ 4 <= ffffffff  
@000057c8: \$ 1 <= 00000001  
@000057cc: \*00000000 <= 00000100  
@000057d0: \*00000000 <= 00000100  
@000057d4: \$ 2 <= 00000001  
@000057d8: \$ 3 <= 00000000  
@000057e0: \$ 3 <= 00000000  
@000057e0: \$ 3 <= 00000000  
@000057e8: \$ 2 <= 00000000  
@00005800: \$ 4 <= 00000001  
@0000580c: \$ 4 <= 00000001  
@0000581c: \$ 3 <= 00000007

@00005820: \$ 1 <= 0000000a  
@00005824: \$ 3 <= 000a0000  
@0000582c: \$ 2 <= 28000000  
@0000584c: \$ 3 <= 00000000  
@00005850: \$ 4 <= 00000000  
@00005858: \$ 3 <= 00000000  
@0000585c: \$ 1 <= 00000000  
@00005864: \$ 2 <= 00000000  
@00005870: \$ 4 <= 00000008  
@0000587c: \$ 1 <= 00000001  
@00005880: \$ 3 <= 00080000  
@00005884: \$ 3 <= 00000000  
@00005888: \*00000000 <= 00000100  
@0000588c: \$ 1 <= 00000000  
@00005890: \$ 2 <= 000a0000  
@00005894: \*00000000 <= 00000000  
@00005898: \$ 4 <= 00000000  
@0000589c: \$ 1 <= 00000000  
@000058a4: \$ 1 <= 00010000  
@000058b8: \$ 3 <= 000a0000  
@000058c4: \$ 1 <= 00000000  
@000058d4: \$ 3 <= 00000000  
@000058e4: \$ 1 <= 000a0000  
@000058e8: \$ 3 <= 00000000  
@000058ec: \$ 2 <= 000a0000  
@000058f8: \$ 3 <= 00000000  
@00005908: \$ 2 <= 000a0000  
@0000590c: \$ 4 <= 000a0000  
@00005918: \$ 1 <= 000a0000  
@00005934: \$ 1 <= 00000000  
@00005948: \$ 3 <= 00000000  
@0000594c: \$ 1 <= 00000000  
@00005950: \$ 3 <= 00030000  
@00005954: \$ 4 <= 00000000  
@0000595c: \$ 2 <= 00000001  
@00005964: \$ 1 <= 00000000  
@00005970: \$ 2 <= 00000000  
@00005988: \$ 1 <= 0000000c  
@00005994: \$ 1 <= 00050000  
@000059a0: \$ 4 <= 00080000  
@000059a0: \$ 4 <= 00080000  
@000059a8: \$ 3 <= 00000000  
@000059ac: \*00000000 <= 00050000  
@000059b0: \$ 2 <= 00000000



@000059b4: \$ 3 <= 00050000  
@000059b8: \$ 4 <= 00010000  
@000059c0: \$ 2 <= 000f0000  
@000059c0: \$ 2 <= 000f0000  
@000059c8: \$ 1 <= 000d0000  
@000059cc: \$ 3 <= 000a0000  
@000059d0: \$ 2 <= 00080000  
@000059d8: \$ 1 <= 00000000  
@000059e0: \*00000000 <= 00050000  
@000059e8: \$ 3 <= 00020000  
@000059ec: \*00000000 <= 00000000  
@000059f4: \$ 2 <= 00020000  
@000059fc: \$ 3 <= 00020000  
@00005a08: \$ 1 <= 00000000  
@00005a24: \$ 1 <= 00000001  
@00005a2c: \$ 1 <= 00000000  
@00005a38: \$ 2 <= 00000000  
@00005a3c: \$ 1 <= 000b0000  
@00005a44: \$ 4 <= 00030000  
@00005a4c: \$ 4 <= 00040000  
@00005a70: \$ 1 <= 80000000  
@00005a74: \$ 4 <= 80000000  
@00005a78: \$ 3 <= 00000000  
@00005a80: \$ 1 <= 00040000  
@00005a84: \$ 3 <= 0000000e  
@00005a88: \$ 4 <= 00000000  
@00005a90: \*00000000 <= 00000000  
@00005a94: \$ 2 <= 00000000  
@00005a9c: \$ 4 <= 00000000  
@00005aa0: \*00000000 <= 00000000  
@00005aa8: \*00000000 <= 00000000  
@00005aac: \$ 2 <= 000e0000  
@00005ab0: \$ 2 <= 00000000  
@00005ab8: \*00000000 <= 00000000  
@00005ac0: \*00000000 <= 00000000  
@00005ac8: \$ 3 <= 00000000  
@00005acc: \*00000000 <= 00000000  
@00005ad4: \$ 1 <= 00000000  
@00005ae0: \$ 4 <= 00000000  
@00005ae4: \$ 1 <= 00040000  
@00005af8: \$ 1 <= 00040000  
@00005afc: \$ 1 <= 00080000  
@00005b00: \$ 2 <= 00000400  
@00005b0c: \$ 1 <= 000a0000

@00005b18: \$ 3 <= 00000000  
@00005b24: \$ 2 <= 0000000c  
@00005b28: \$ 2 <= 00000000  
@00005b2c: \$ 4 <= 00000000  
@00005b30: \*00000000 <= 00000000  
@00005b34: \$ 2 <= 00000001  
@00005b3c: \$ 1 <= 00000000  
@00005b40: \$ 2 <= 00000000  
@00005b44: \$ 1 <= 00000000  
@00005b48: \$ 3 <= 00030000  
@00005b54: \$ 1 <= 000a0000  
@00005b5c: \$ 3 <= 0003000c  
@00005b60: \$ 1 <= 00000000  
@00005b64: \$ 4 <= 00080000  
@00005b6c: \$ 1 <= 00000000  
@00005b70: \$ 3 <= 00000000  
@00005b74: \$ 4 <= 0000001e  
@00005b7c: \*0000001c <= 00000008  
@00005b80: \*0000001c <= 001e0008  
@00005b84: \$ 1 <= 00080000  
@00005b88: \$ 4 <= 00080000  
@00005b90: \$ 4 <= 00000000  
@00005b94: \$ 2 <= 00000000  
@00005b9c: \$ 3 <= 00070000  
@00005ba4: \$ 1 <= 00000000  
@00005bac: \$ 4 <= 0000001e  
@00005bb4: \*0000001c <= 001e0008  
@00005bbc: \$ 2 <= 00000000  
@00005bc4: \$ 3 <= 000b0000  
@00005bd4: \$ 3 <= 00000000  
@00005be4: \$ 4 <= 00030000  
@00005be8: \$ 2 <= 00000000  
@00005bec: \$ 4 <= 00000000  
@00005bf0: \$ 1 <= 00000000  
@00005bf4: \*00000000 <= 00000000  
@00005bf8: \*00000000 <= 00000000  
@00005c04: \$ 4 <= 00070000  
@00005c08: \$ 4 <= 00070000  
@00005c0c: \$ 4 <= 00070000  
@00005c14: \*00000000 <= 00070000  
@00005c1c: \$ 4 <= 00010000  
@00005c24: \$ 1 <= 00010001  
@00005c2c: \$ 3 <= 00000000  
@00005c34: \$ 4 <= 00000000

@00005c44: \$ 2 <= 00000000  
@00005c4c: \$ 3 <= 00000000  
@00005c54: \$ 2 <= 00000009  
@00005c64: \$ 1 <= 00000000  
@00005c68: \$ 2 <= 00000000  
@00005c6c: \$ 1 <= 00060000  
@00005c70: \$ 1 <= 00000000  
@00005c74: \$ 4 <= 00000000  
@00005c78: \*00000000 <= 00070000  
@00005c7c: \$ 1 <= 00000000  
@00005c84: \$ 2 <= 00000006  
@00005c8c: \$ 2 <= 00000006  
@00005c90: \$ 2 <= 00000001  
@00005ca0: \$ 4 <= 00000000  
@00005ca4: \$ 1 <= 00000000  
@00005ca8: \$ 2 <= 00000000  
@00005cc0: \$ 1 <= 00000000  
@00005cc4: \$ 2 <= 00000000  
@00005cc8: \$ 1 <= 00000000  
@00005cd0: \$ 3 <= 000f0000  
@00005cd0: \$ 3 <= 000f0000  
@00005cdc: \$ 2 <= 00000000  
@00005ce0: \$ 2 <= 00000000  
@00005ce4: \$ 4 <= 00000000  
@00005ce8: \$ 2 <= 000f0000  
@00005cec: \$ 2 <= 000d0000  
@00005d00: \$ 3 <= 00000000  
@00005d10: \$ 2 <= 00000000  
@00005d18: \$ 1 <= 00000000  
@00005d30: \$ 1 <= 00000000  
@00005d34: \$ 2 <= 00000000  
@00005d38: \$ 2 <= ffffffff  
@00005d3c: \$ 3 <= ffffffff  
@00005d40: \*00000000 <= 0007ffff  
@00005d44: \$ 3 <= 00010000  
@00005d50: \$ 1 <= 00010000  
@00005d54: \$ 4 <= 00030000  
@00005d58: \$ 2 <= 00000000  
@00005d5c: \$ 4 <= 00000000  
@00005d64: \*00000000 <= 0007ff00  
@00005d70: \$ 3 <= 00000000  
@00005d70: \$ 3 <= 00000000  
@00005d74: \$ 1 <= 00000000  
@00005d84: \$ 1 <= 00000000

@00005d90: \$ 3 <= ffffff00  
@00005d98: \$ 3 <= 00000000  
@00005da8: \$ 3 <= 000d0000  
@00005dc0: \$ 2 <= 000d0000  
@00005dc8: \$ 4 <= 000d0000  
@00005dd0: \$ 4 <= 000d000b  
@00005dd4: \$ 2 <= 00000000  
@00005ddc: \$ 3 <= 00000000  
@00005de0: \*00000000 <= 00070000  
@00005de4: \$ 1 <= 00000000  
@00005df4: \$ 4 <= 00000000  
@00005df8: \*00000000 <= 00070000  
@00005dfc: \*00000000 <= 00000000  
@00005e04: \$ 1 <= 00000000  
@00005e08: \$ 4 <= 000d0000  
@00005e0c: \$ 4 <= 00000000  
@00005e14: \$ 2 <= 00000001  
@00005e1c: \$ 4 <= ffffffff  
@00005e20: \$ 4 <= 000b0000  
@00005e28: \$ 1 <= 000b0000  
@00005e40: \$ 1 <= 00060000  
@00005e40: \$ 1 <= 00060000  
@00005e44: \$ 3 <= fff9ffff  
@00005e48: \$ 4 <= 000d0000  
@00005e54: \$ 2 <= 00000000  
@00005e58: \*00000000 <= 00000000  
@00005e5c: \$ 2 <= 00000079  
@00005e60: \$ 2 <= 00000084  
@00005e68: \$ 4 <= ffffff7b  
@00005e74: \$ 1 <= ffffff7b  
@00005e7c: \$ 2 <= ffffff86  
@00005e84: \$ 4 <= fffa000b  
@00005e8c: \$ 2 <= fff9ff86  
@00005ea4: \$ 4 <= 00003a24  
@00005ea8: \$ 3 <= 000001d1  
@00005eac: \$ 3 <= 00000000  
@00005ebc: \$ 4 <= 000c0000  
@00005ec0: \$ 1 <= 000e0000  
@00005ec8: \$ 2 <= 00000000  
@00005ed0: \$ 2 <= 00000000  
@00005ed8: \$ 1 <= 00000006  
@00005ee8: \$ 1 <= 00000000  
@00005eec: \$ 2 <= 00000000  
@00005ef0: \*00000000 <= 00000000

@00005ef4: \$ 4 <= 00000000  
@00005efc: \$ 4 <= 00050000  
@00005f0c: \$ 1 <= 00050000  
@00005f14: \$ 2 <= 000c0000  
@00005f24: \$ 2 <= 000c0000  
@00005f28: \$ 3 <= 00180000  
@00005f2c: \$ 3 <= 000c0000  
@00005f3c: \$ 4 <= 00000000  
@00005f40: \$ 2 <= 00000000  
@00005f44: \$ 3 <= 00000000  
@00005f4c: \$ 4 <= 0000000f  
@00005f50: \$ 1 <= 0000000f  
@00005f54: \$ 4 <= 00000000  
@00005f5c: \$ 2 <= 00000000  
@00005f6c: \$ 1 <= 00000000