

Li, Everette HW1

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1:

a -> 1(KB)

b -> 0.833(ns)

c -> 0.137(TB)

d -> 2000(ms)

2:

a -> 800667

b -> YBRRIG

3:

a -> $2^{16}(\# \text{ funct}) + 2^{16}(\# \text{ opcode}) - 1(\text{R-type})$

b -> [0, 2^{48}]

4:

#<-----a----->#

.text

L1: addi \$t1, \$zero, 10
addi \$t2, \$zero, 5

L2: add \$t1, \$t1, \$t1
addi \$t1, \$t1, -1
beq \$t1, \$t2, L4

L3: add \$t2, \$t2, \$t2
addi \$t2, \$t2, -1

L4: add \$t1, \$t1, \$t1
addi \$t1, \$t1, -1
sub \$t2, \$t2, \$t1

L5: bne \$t2, \$t1, L2

#<-----b----->#

Symbol table

L1 1

L2 3

L3 6

L4 8

L5 11

5:

L1 0x00400000

L2 0x00400008

L3 0x00400014

L4 0x0040001c

L5 0x00400028

6:

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ve:    0x75
       0xab
       0x45
       0xc1-----># 0x75ab45c1
vd:    0xef
       0xb2-----># 0xefb2
       0x12
       0x34-----># 0x1234
vc:    0x61
       0x62
       0x63
       0x64-----># abcd
vb:    0x12
       0xef
       0x2c-----># 0x12ef2c
va:    0x2a-----># 0x2a

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7:

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a -> $a0, $a1, $a2, $a3, $s0, $s1, $s2, $fp, $ra

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b -> 36 (byte)

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c -> 196 (byte)

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