

3) sw \$t1, 32(\$t2) I-format

op rs rt address
101011 01010 01001 000000000000000000000000

1010 1101 0101 1001 1000

A D R 9 0 0 0 ^

4) op=0 rs=10 rt=9 rd=10 shamt=0 funct=16E

R-format sub \$t2, \$t2, \$t1

000000010101010010101010000000000000000000

5) op = 0xE rs=11 rt=11 Const = 0x1E

op = 001110 rs = 01100 rt = 01101 Const = 00000000011100

xori \$t5, \$t4, 4

001110011000011010000000000000000100

6) i → \$t1 result → \$s2 Memory base address → \$s0

addi \$t1, \$0, \$0

op lw \$s1, 0(\$s0)

add \$s2, \$s1, \$s1

addi \$s0, \$s0, 1

addi \$t1, \$t1, 1

slti \$t2, \$t1, 100

bne \$t2, \$0, Loop

int i = 0

while (i < 100)

result += MemArray[0]

MemArray[i] += 1

i++

sam

7) max: addi \$sp, \$sp, -8

sw \$ra, 4(\$sp)

sw \$a0, 0(\$sp)

sw \$a1, 4(\$sp)

sw \$a2, 8(\$sp)

sl \$t0, \$a1, 2

add \$t0, \$a0, \$t0 # A[K]

sub \$t1, \$a2, 1

bne \$t1, \$a0, ELSE

sw \$r0, 0(\$t0)

jr \$ra

ELSE: addi \$a1, \$a1, 1

jal max

lw \$a0, 0(\$sp)

lw \$a1, 4(\$sp)

lw \$a2, 8(\$sp)

lw \$ra, 0(\$sp)

beq \$r0, 0(\$t0), L1

bne \$r0, 0(\$t0), L2

L1: sw \$r0, \$r0, \$Zero

L2: sw \$r0, 0(\$t0)

addi \$sp, \$sp, 8

jr \$ra

s.a.m