

2018/6/52 61710명

1011.  $\rightarrow$   $\frac{0100}{0101} = 8.$

1. add:  $\$t2, \$t0, 4 \Rightarrow \$t2 = \$(A[t+1])$
- lw:  $\$t0, 0(\$t2) \Rightarrow \$t0 = A[t+1]$
- add:  $\$t0, \$t0, \$s0 \Rightarrow \$t0 = \$t0 + A[t]$
- sw:  $\$t0, 0(\$t1) \Rightarrow B[8] = \$t0$

$$\Rightarrow B[8] = A[t+1] + A[t]$$

2. (a)  $\$t0 \Rightarrow 0 \times 5000\ 0000\ 0000\ 0000$

(b) overflow.

(c)  $\$t0 \Rightarrow 0 \times 8000\ 0000\ 0000\ 0000$

(d) desired result.

3. 000000. 10000 10000 10000 00000/00000

$\Rightarrow$  R-format (op == 0)

$\rightarrow$  add:  $\$s0, \$s0, \$s0$

4. R-format.

Sub:  $\$v1, \$v1, \$v0$

000000 00011 00010 00011 00000 100010

6	9	2	4
	8	4	3
	7	6	2
		8	1
5	10		0

5. (a).  $\$S0 = 20$ .

(b). while ( $i > 0$ )

{

$i--$ ;

$B++ = 2$ ;

}

(c).  $5N + 2$  instructions.

6. fib: addi  $\$SP, \$SP, -16$ .

sw  $\$ra, 12(\$SP)$

sw  $\$a0, 8(\$SP)$

sw  $\$s0, 4(\$SP)$

sw  $\$s1, 0(\$SP)$

bne  $\$a0, \$zero, Check1$ .

add  $\$v0, \$zero, \$zero$

j ret

Check1: addi  $\$t0, \$zero, 1$

bne  $\$a0, \$t0, L1$ .

add  $\$v0, \$t0, \$zero$

j ret

L1: subi  $\$a0, \$a0, 1$ .

jal fib

add  $\$s0, \$v0, \$zero$

subi  $\$a0, \$a0, 1$

jal fib

add  $\$s1, \$v0, \$zero$ .

add  $\$v0, \$s1, \$s0$ .

ret: lw  $\$s1, 0(\$SP)$

lw  $\$s0, 4(\$SP)$

lw  $\$a0, 8(\$SP)$

lw  $\$ra, 12(\$SP)$

addi  $\$SP, \$SP, 16$ .

jr  $\$ra$