

CS 441

HW 3

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2.19, 2.23, 2.39

2.19.

 $\$t0 = 0xAAAAAAAA$ $\$t1 = 0x12345678$

1	0	1	0	A
1	0	1	1	B
1	1	0	0	C
1	1	0	1	D
1	1	1	0	E
1	1	1	1	F

2.19.1.

sll $\$t2, \$t0, 4$ $\$t2 = 0xAAAAAA00$ or $\$t2, \$t2, \$t1$

\$t2	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0
\$t1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	0	1	0	0
	1	0	1	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	0	0
	B		A		B		E		F		E		F		F			8		

 $\$t2 = 0xBABEF EF8$

2.19.2

sll $\$t2, \$t0, 4$ $\$t2 = 0xAAAAAA00$ and; $\$t2, \$t2, -1$ $\$t2 = 0xFFFFFFFF$

2.19.3

srl $\$t2, \$t0, 3$ $\$t2 = 0x1AAAAAAA$ and; $\$t2, \$t2, 0xFFFF$

$\$t2$	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
0xFFFF	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0

 $\$t2 = 0x1AAAAAAA$

2.23. $\$t0 = 0x00101000$

$s1 + \$t2, \$t0, \$t0$

$\$t2 = 0x00000001$

done $\$t2, \$t0, ELSE$

j DONE

ELSE: add; $\$t2, \$t2, 2$

DONE:

$\$t2 = 0x00000003$

2.39.

$0x20014924$

lui $\$t1, 0x2001$

ori $\$t1, \$t1, 0x4924$