Homework 2   2.4, 2.14, 2.15

2.4
sll $t0, $s0, 2   // $t0 = f * 4
add $t0, $s6, $t0   // $t0 = &A[f]
sll $t1, $s1, 2   // $t1 = g * 4
add $t1, $s7, $t1   // $t1 = &B[g]
lw $s0, 0($t0)   // $\boxed{f = A[f]}$
addi $t2, $t0, 4   // $t2 = &A[f+1]
lw $t0, 0($t2)   // $t0 = A[f+1]
add $t0, $t0, $s0   // $t0 = A[f+1] + A[f]
sw $t0, 0($t1)   // $\boxed{B[g] = A[f+1] + A[f]}$

f = $s0	
g = $s1	
h = $s2	
i = $s3	
J = $s4	
Address A = $s6	
Address B = $s7	

2.14

0000 0010 0001 0000 | 1000 0000 0010 0000

6	5	5	5	5	6

000000,	10000,	10000,	10000,	00000,	100000,
op	rs	rt	rd	shamt	funct
0	16	16	16	0	32
O	$s0	$s0	$s0	0	add

add $s0, $s0, $s0

2.15   sw $t1, 32($t2)

I-code Instruct (OP 6bit | RS 5bit | RT 5bit | 16 Bit Add)
→   (43   10   9   32)

101011 01010 01001 | 0000 0000 0010 0000 |

Binary   1010 1101 0100 1001 0000 0000 0010 0000

Hex   ~~AE49 0020~~   AD490020