컴퓨터구조 HW03

1-1

Add $t0, $s0, $s1

$s0 은 0x8000000, $s1은 0xD000000

```
  1000 0000  0000  0000  0000 0000 0000  0000
+ 1101 0000  0000  0000  0000 0000 0000  0000
─────────────────────────────────────────────
  1 0101
```

∴ $t0 = 0x50000000

1-2
overflow

1-3

```
   1000  0000
 - 1101  0000
 ──────────────
   1011  0000
```

∴ $t0 = 0xB0000000

1-4
not overflow

2. Not $t1, $t2

  Sol) nor $t1, $t2, $0

3. A = C[0] << 4;

  Sol) lw $t0, 0($s0)
       sll $t0, $t0, 4

4. for (i=0; i<a; i++)
     for (j=0; j<b; j++)
       D[4*j] = i+j;

  Sol) addi $t0, $0, 0
       beq $0, $0, TEST1
  LOOP1: addi $t1, $0, 0
       beq $0, $0, TEST2
  LOOP2: add $t3, $t0, $t1
       sll $t2, $t1, 4
       add $t3, $t2, $s2
       sw $t3, ($t2)
       addi $t1, $t1, 1
  TEST2: slt $t2, $t1, $s1
       bne $t2, $0, LOOP2
       addi $t0, $t0, 1
  TEST1: slt $t2, $t0, $s0
       bne $t2, $0, LOOP1