

Chapter 2

2.1

```
addi $s0, $s2, -5  
add $s0, $s0, $s1
```

2.2

```
f = g + h + i;
```

2.3

```
sub $t0, $s3, $s4  
sll $t0, $t0, 2  
add $t0, $s6, $t0  
lw $t1, 0($t0)  
sw $t1, 32($s7)
```

2.4

```
B[g] = A[f] + A[1+f];
```

2.7

題目中 B[8] 改為 B[g]

Assume that the elements of the arrays A and B are 4-byte words

```
sll $t0, $s3, 2  
add $t0, $t0, $s6  
lw $t0, 0($t0)  
sll $t1, $s4, 2  
add $t1, $t1, $s6  
lw $t1, 0($t1)  
add $t0, $t1, $t0  
sll $s1, $s1, 2  
add $t1, $s7, $s1  
sw $t0, 0($t1)
```

2.8

題目中指令 add \$t1, \$s6, \$0 改為 add \$t1, \$s6, \$zero

```
f = 2*(&A);
```

2.17

2.17.1 題目中指令 sll \$t2, \$t0, 44 改為 sll \$t2, \$t0, 4

0xAAAAAAA << 4 => 0xAAAAAAA0

0xAAAAAAA0 OR 0x12345678 => 0xBABEF8

2.17.2 0xAAAAAAA0

2.17.3 0x00005545

2.24

題目中\$0 皆為\$zero

2.24.1

20

2.24.2

```
i = 10;  
while ( i > 0){  
    i = i - 1;  
    B += 2;  
}
```

2.24.3

5N+2

2.27

題目中指令 addi \$t1, \$0, 0 改為 addi \$t1, \$zero, 0

題目中指令 bne \$t2, \$s0, LOOP 改為 bne \$t2, \$zero, LOOP

i = 0;

```
while (i < 100) {  
    result+= MemArray[i];  
    i++;  
}
```