COMP2611 Midterm Quick Reference

1. Base Conversion

Bin	Dec	Hex
0000	0	0
0001	1	1
0010	2	2
0011	3	3
0100	4	4
0101	5	5
0110	6	6
0111	7	7
1000	8	8
1001	9	9
1010	10	A
1011	11	B
1100	12	C
1101	13	D
1110	14	E
1111	15	F
11 0000	48	30
0100 0001	65	41
0110 0001	97	61
0111 1111	127	7F
1000 0000	128	80
1111 1111	255	FF
0001 0000 0000	256	100
0011 1111 1111	1023	3FF
0100 0000 0000	1024	400

2. MIPS Code for Inequal Equation

```
if($i < $j) stat_A;
else stat_B;
```

```
        slt $t0, $i, $j
        bne $t1, $0, stat_A
        j stat_B
stat_A:             # do sth
        j exit
stat_B:             # do sth
exit:
```

```
if($i > $j) stat_A;
else stat_B;
```

```
        slt $t0, $j, $i
        bne $t1, $0, stat_A
        j stat_B
stat_A:             # do sth
        j exit
stat_B:             # do sth
exit:
```

```
if($i <= $j) stat_A;
else stat_B;
```

```
        slt $t0, $j, $i
        beq $t1, $0, stat_A
        j stat_B
stat_A:             # do sth
        j exit
stat_B:             # do sth
exit:
```

```
if($i >= $j) stat_A;
else stat_B;
```

```
        slt $t0, $i, $j
        beq $t1, $0, stat_A
        j stat_B
stat_A:             # do sth
        j exit
stat_B:             # do sth
exit:
```