

CISC 260

Solution set: HW4

Exercise 6.3

- a) 168, 0xA8
- b) 0xA8, 0xA9, 0xAA, 0xAB
- c) Big-endian:

0xA8	0xA9	0xAA	0xAB
FF	22	33	44

Little-endian:

0xA8	0xA9	0xAA	0xAB
44	33	22	FF

Exercise 6.5

LDRB R2

Big-endian: CD

Little-endian: D8

Exercise 6.10

- 1. 0xE3A0AB3E
- 2. 0xE1A09386
- 3. 0xE78B4008
- 4. 0xE1A06357

Exercise 6.14

```
MOV R2, #0
LSL R1, R0
LOOP CMP R1, R0
    BHI LABEL
    ADD R2, R2, #1
    ADD R1, R1, R3
    B LOOP
LABEL MOV R0, R2
```

Calculates a/b

Exercise 6.18

- a) Two solutions:

Solution A	Solution B
CMP R0, R1 BLT ELSE ADD R0, R0, R1 B END	CMP R0, R1 BGE ELSE SUB R0, R0, R1 B END

ELSE SUB R0, R0, R1 END HALT	ELSE ADD R0, R0, R1 END HALT
CMP R0, R1 BGE ELSE ADD R1, R1, #1 B END MUL R1, R1, #2 END HALT	CMP R0, R1 BLT ELSE MUL R1, R1, #2 B END ADD R1, R1, #1 END HALT

- b) Two sections:
- i. CMP R0, R1
ADDGE R0, R0, R1
SUBLT R0, R0, R1
 - ii. CMP R0, R1
ADDLT R1, R1, #1
MULGE R1, R1, #2

Exercise 6.31

- a) 0x0A000001
- b) 0xEAFFE3FC