# COMP1047 Lab Week 04

1. Convert the Hexadecimal number 3A.F0 into single precision floating point representation. Show its corresponding 32-bit word in Hex format.

2. Work out the IEEE 754 single-precision representations for the following numbers.
        (a) 10.25       (b) -128.6

3. Write a MIPS program, using .word or .float directive to store both numbers into the memory and then print them out to check whether your results in the previous question are correct. *Hint: You may need to use instruction lwc1.*

4. Write a short MIPS program to complete the addition and multiplication of the two numbers (10.25 and -128.6), and then print the results out.

5. Write a program in MIPS32 assembly language which reads two numbers x and y from the console, calculates, then prints x + 2y + 32769. *Hint: no multiplication is necessary and proper user prompts are expected.*

6. Write a program in MIPS32 assembly language which reads three integer numbers x, y and z from the console, then calculates and prints out *m*, the minimum of the three. The following C segment shows how *m* can be calculated:

```
m = x;
if (m > y)  m = y;
if (m > z)  m = z;
```

7. Write a program in MIPS assembly language to read two integer numbers A and B. The program should indicate if one of these numbers is multiple of the other one.