Computer Architecture Lab 2 Exercise Sheet 1

Problem 1:

Write an ARM7 assembly program that performs the following mathematical equation: (A+B) – (C+D), Variables A, B, C, and D are represented by Registers R0, R1, R2, R3 respectively, assume moving any values in the registers as initial values.

AREA EX1, CODE
ENTRY

MOV R0, #10
MOV R1, #3
MOV R2, #2
MOV R3, #4
ADD R4, R0, R1
ADD R5, R2, R3
SUB R6, R4, R5

END

Problem 2:

Write an ARM7 Assembly program that swaps the values between two Registers R3 and R4. Assume moving any values in the registers as initial values.

AREA EX2, CODE
ENTRY

MOV R3, #5
MOV R4, #3
MOV R5, R3
MOV R3, R4
MOV R4, R5

END