Problem 1:

Converts the following c-code to an ARM7 assembly language.

```
int a =5;
int b =6;
int max =0;
if (a<b)
        max = b;
else if (a>b)
        max = a;
else
        max =100;
```

Problem 2:

Write an ARM7 Assembly program that finds the maximum value within 3 values, given the following c-code.

```
int a =5;
int b =6;
int c =8;
int max =0;
if (a>b)
        if (a>c)
                max =a;
        else
                max = c;
else
        if (b>c)
                max = b;
        else
                max =c;
```

Problem 3:

As there is no division instruction in ARM. To perform this operation we treat it as a successive subtraction as in the following example:

If we need to calculate 7/2 (which will be 3 and remainder 1), the initial dividend is 7 and we have to calculate both quotient and remainder. We can repeatedly subtract 2 (divisor) from current dividend until we reach some value less than current dividend which will be the remainder as following:

divisor	dividend	quotient
2	7	0
2	5	1
2	3	2
2	1	3

We must stop here because the divisor is less than the dividend and finally the quotient equals 3 and remainder is 1 (which is the last value of the dividend).

Write an ARM7 assembly program that performs a division between two operands and stores the quotient in register R3, and the remainder in register R4.