6A)0's and 1's(bit field)

```
      AREA DATA1, DATA, READONLY
      DCB 0X0000008F
      AREA DATA2, DATA, READWRITE
ONES DCB 0
ZEROS DCB 0
      AREA PROGRAM, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0,=DATA1
      EOR R5, R5, R5
      EOR R6, R6, R6
      MOV R1, #32
      LDR R3,[R0]
TOP TST R3,#01
      BEQ INC_ZERO
      ADD R6,#1
      B DN
INC_ZERO
      ADD R5,#1
DN LSR R3, #1
      SUB R1, #1
      CMP R1,#0
      BNE TOP
      LDR R0,=ZEROS
      STRB R6,[R0]
      LDR R0,=ONES
      STRB R5,[R0]
STOP B STOP
      END
```

6B)POSITIVE/NEGETIVE

```
      AREA PROG2, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0,= -11
      TST R0, #0X80000000
      BEQ num_is_pos
      BNE num_is_neg
num_is_pos
      MOV R3, #0X00
      B STOP
num_is_neg
      MOV R3, #0XFF
STOP B STOP
      END
```

6C)ODD/EVEN

```
      AREA PROG2, CODE, READONLY
ENTRY
      EXPORT START
START
      LDR R0,=11
      TST R0, #1
      BEQ num_is_even
      BNE num_is_odd
num_is_even
      MOV R3, #0X00
      B STOP
num_is_odd
```

```
        MOV R3, #0XFF
STOP B STOP
        END
```