Assemble and run the following programs using the PIC18 Simulator IDE. Your solution should include the theoretical results, the assembler listing and an annotated screen capture of the simulator showing the correct register values.

1.

```
            #include <p18F452.inc>
SUM         EQU         0x10
            ORG         0x00
            GOTO        START
            ORG         0x20
START:      MOVLW       D'93'
            MOVWF       SUM
            MOVLW       D'122'
            ADDWF       SUM,W
            BNC         SAVE
            SETF        WREG
SAVE:       MOVWF       SUM
            SLEEP
            END
```

a) Specify the results of the ADD operation.
b) Specify the answer stored in SUM.
c) Specify the final contents of the STATUS register.

2.

```
            #include <p18F452.inc>
BYTE        EQU         0xC7
RESULT      EQU         0x01
            ORG         0x00
            GOTO        START
            ORG         0x20
START:      MOVLW       BYTE
            MOVWF       RESULT
            BN          NEXT
            BCF         RESULT,7
NEXT:       SLEEP
            END
```

a) Specify the answer stored in RESULT.
b) Specify the final contents of the STATUS register.