8.4 Exercise: Display String

The display string routine should include:
- a proper header, as usual
- an indirect load of the character to be printed, using the X index register as a pointer
- a test for the null character that causes the routine to exit when it is detected
- a subroutine call to the write character display routine
- an instruction to increment the string pointer (the X index register)

The code to write a string to the display would look something like this:

```
TESTMESSAGE FCC 'Hi There!'        ; The message
            FCB 00                 ; The message terminator
            LDX #TESTMESSAGE       ; Initializing the pointer into the message
            JSR DISPLAYSTRING      ; Write the string
            SWI                    ; Break to the monitor
```

followed by the code for the display string and display character subroutines:

```
LDX #TESTMESSAGE
JSR DISPLAYSTRING

LDAA #'A'                          ; Display A
JSR DISPLAYCHAR

del_50us:  PSHX                    ;2 E-clk
eloop:     LDX #30                 ;2 E-clk -
iloop:     PSHA                    ;2 E-clk |
           PULA                    ;3 E-clk |
           PSHA                    ;2 E-clk | 50us
           PULA                    ;3 E-clk |
           NOP                     ;1 E-clk |
           NOP                     ;1 E-clk |
           DBNE X,iloop            ;3 E-clk -
           RTS                     ;5 E-clk
```