John Carroll
902521946
jcc0044

Homework 2

2.)

```
.data
saved DWORD   0

.code

beginning:                      ;top of loop label
        jecxz ending            ;exit statement

        ; Loop body: read from keyboard, add to memory, decrement ECX
        call    ReadDec
        add     saved,  eax
        sub     ecx,    1

        jmp beginning           ;repeat statement
ending:                         ;end of loop label

; Display value stored in memory
mov eax, saved
call WriteDec
```

3.)

(a) big endian byte ordering?

6A 7B 8B 6A

(b) little endian?

6A 8B 7B 6A

4.)

(a) How many bytes of memory are allocated to store this data?

16 bytes

(b) How will this data be stored in memory as a sequence of bytes? Write the byte values in hexadecimal, starting from the byte at the lowest memory address.

0a 00 10 00 fd ff 00 00 03 00 03 00 c0 9f 82 83

5.)

(a) **nums WORD 10 20 30 40 ; Array of four words**

error A2206: missing operator in expression

Invalid because, simply: it lacks comma operands. To correct, add commas.

(b) **BYTE ?**

Valid

(c) **BYTE 256**

error A2071: initializer magnitude too large for specified size

Invalid because 256 is 1 too big for a BYTE. 255 would work as a correction.

(d) **WORD 'x'**

Valid

(e) **WORD "Hello",0**

error A2084: constant value too large

Invalid because "hello" cannot be stored in a WORD but it can be stored in a BYTE.

(f) **twofiftyfive WORD FFh ; Hexadecimal FF**

error A2006: undefined symbol : FFh

Invalid This symbol is an undefined symbol in the ASCII table. I am not sure what would be a correction for this but I think FFh is in the extended ASCII table.

(g) **ebp BYTE "ebp",0 ; Null-terminated string ebp**

Valid

(h) **empty DWORD 4*1024 DUP(?)**

Valid