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.)**

1. **big endian byte ordering?**

6A 7B 8B 6A

1. **little endian?**

6A 8B 7B 6A

**4.)**

1. **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