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CS 516

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Assignment 4

Chapter 4 #(7-10)

7. “Joy”

8. “ “ -- Only the first two spaces output, backwards.

9. ‘M’

10. 272 unary, 1088 non-unary instructions.   
 Pep 9 has 65536 bytes.

31000 words takes 62000 bytes.

65536 - 62000 = 3536 bytes

Unary (1 byte) = x, non-unary(3 bytes) = 4x

1\*x + 3\*4x = 3536 = 13x

X = 272, 4X = 1088

Chapter 5 #(1-12)

1. a. 9AEF2A → ORX 0xEF2A,n

b. 03 → MOVSPA

c. D7003D → LDBA 0x003D,sfx

2. a. 82B7DE → ANDA 0xB7DE,n

b. 04 → MOVFLGA

c. DF63DF → LDBX 0x63DF,sfx

3. a. ASLA → 0A

b. DECI 0x000F,s → 33 00 0F

c. BRNE 0x01E6,i → 1A 01 E6

4. a. ADDA 0x01FE,i→ 60 01 FE

b. STRO 0x000D,sf → 4B 00 0D

c. LDWX 0x01FF,s → CB 01 FF

5. a. .ASCII “Bear\x00” → 42 65 61 72 00

b. .BYTE 0xF8 → F8

c. .WORD 790 → 03 16

6. a. .BYTE 13 → 00 0D

b. .ASCII “Frog\x00” → 46 72 6F 67

c. .WORD -6 → FF FA

7. “mug” (backwards, since bytes loaded backwards)

8. “si”

9. g → G

A → A

10. -57

72

0048

Hi

11. -413

98

0062

by

12.

a. *Object code: Output:*

38 00 6D 109

D0 00 0A 109

F1 FC 16 &

38 00 6D

D0 00 0A

F1 FC 16

D0 00 26

F1 FC 16

00 zz

b. *Object code: Output:*

38 00 51 81

D0 00 0A -61

F1 FC 16 }

38 FF C3

D0 00 0A

F1 FC 16

D0 00 7D

F1 FC 16

00 zz