

CS1203

Assignment 2

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“I warrant that his is my own work”

1)            7            5            0            3  
               (111)        (101)        (000)        (011)

              1111        0100        0011  
               F            4            3

2)            9            C            3            B  
               (1001)        (1100)        (0011)        (1011)

              (001) (001) (110) (000) (111) (011)  
               1     1     6     0     7     3

3) a)        (001) (011) (010) (111)  
               1     3     2     7

b)        (0010) (1101) (0111)  
               2     D     7

4) a)        1101101 ->  $1 + 4 + 8 + 32 + 64 = 109$

b)        A57B ->  $11 + 7 \cdot 16 + 5 \cdot 16^2 + 10 \cdot 16^3 = 42363$

c)        3725 ->  $5 + 2 \cdot 8 + 7 \cdot 8^2 + 3 \cdot 8^3 = 2005$

5.        75 ->  $= 64 + 11$

$64 + 8 + 3$

$64 + 8 + 2 + 1 \rightarrow 1001011$

6.  $1297 \rightarrow 1297 \text{ MOD } 8 = 162 \text{ R}=1$   
 $162 \text{ MOD } 8 = 20 \text{ R}=2$   
 $20 \text{ MOD } 8 = 2 \text{ R}=4$   
 $2 \text{ MOD } 8 = 0 \text{ R}=2$

The remainders are the converted octal places so it would be 2421

7.  $2029 \rightarrow 2029 \text{ MOD } 16 = 126 \text{ R} = 13$   
 $126 \text{ MOD } 16 = 7 \text{ R} = 14$   
 $7 \text{ MOD } 16 = 0 \text{ R}=7$

The remainders are in decimal so then convert to hex

7	14	13
7	E	D

8.  $624 \rightarrow 624 \text{ MOD } 7 = 89 \text{ R}= 1$   
 $89 \text{ MOD } 7 = 12 \text{ R}=5$   
 $12 \text{ MOD } 7 = 1 \text{ R}=5$   
 $1 \text{ MOD } 7 = 0 \text{ R}=1$

1551 //I did it wrong no time oops

9.  $921 \rightarrow 921 \text{ MOD } 14 = 65 \text{ R}=11$   
 $65 \text{ MOD } 14 = 4 \text{ R}=9$   
 $4 \text{ MOD } 14 = 0 \text{ R}=4$

49B

10. a)  $27AC + 385$

	1 1
	27AC
+	385
	2B42

I couldn't finish the rest but It was due to me being up all night in pain and puking, I couldn't get a good sleep. I know it should have been done before then, but If you would let me resubmit via email, send me an email at [ishoebot@unb.ca](mailto:ishoebot@unb.ca)