Lab 02

Converting to base 16

1)

a= db 34, 34/16=2 =0010b rest=2=0010b

So, db 34= 0x22 reversed =0x 22

b= dw 34, 34/16=2=0010b rest=2=0010b

So, dw 34=0000 0000 0010 0010b=0x0022 reversed= 0x 2200

c= dd 34, 34/16=2=0010b rest=2=0010b

So, dd 34=0000 0000 0000 0000 0000 0000 0010 0010=0x00000022

Reversed= 0x 22000000

2)

d= dd 26.125, 26/2=13 rest =0 .125\*2=.25

13/2=6 rest=1 .25\*2=.5

6/2=3 rest=0 .5\*2=1.0

3/2=1 rest=1

So 26=11010b So .125= .001b

So, 26.125=11010.001b=1.1010001 \* 2^4

Exponent Bias =127+4=131 = 128+2+1 =10000000 + 10 + 1 =10000011

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| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

So dd 26.125 =0x41d10000 reversed =0x 0000d141

3)

e= db 10 = 0000 1010b = 0x 0A reversed= 0x A0

4)

f=32452 32452/16=2028 rest=4

2028/16= 126 rest=12= C

126/16=7 rest=14= e

So dw 32452= 0x 7ec4 reversed =c47e