Nombre: Sergio Alejandro Meneses Galvis   Correo: semeneses@unal.edu.co

Carrera: Ingeniería Electrónica

Programación de Computadores

Laboratorio 1

1. ASCII: Sergio Alejandro Meneses Galvis

Decimal:

83 101 114 103 105 111 32 65 108 101 106 97 110 100 114 111 32 77 101 110 101 115 101 115 32 71 97 108 118 105 115

Binario:

01010011 01100101 01110010 01100111 01101001 01101111 00100000 01000001 01101100 01100101 01101010 01100001 01101110 01100101 01101010 01100001 01101110 01100100 01110010 01101111 00100000 01001101 01100101 01101110 01100101 01110011 01100101 01110011 00100000 01000111 01100001 01101100 01110110 01101001 01110011

2. 843 = 101001010

$$\frac{842}{2} = 421 \rightarrow 0$$

$$\frac{421}{2} = 210 \rightarrow 1$$

$$\frac{210}{2} = 105 \rightarrow 0$$

$$\frac{105}{2} = 52 \rightarrow 1$$

$$\frac{52}{2} = 26 \rightarrow 0$$

$$\frac{26}{2} = 13 \rightarrow 0$$

$$\frac{13}{2} = 6 \rightarrow 1$$

$$\frac{6}{2} = 3 \rightarrow 0$$

$$\frac{3}{2} = 1 \rightarrow 1$$

3. Decimal

Columna1	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1
11100101011110	1	1	1	0	0	1	0	1	0	1	1	1	1	0
1111111111111		1	1	1	1	1	1	1	1	1	1	1	1	1
100000000001		1	0	0	0	0	0	0	0	0	0	0	0	0
10101011110000	1	0	1	0	1	0	1	1	1	1	0	0	0	0

11100101011110 = 8192+4096+2048+256+64+16+8+4+2 = 14686

1111111111111 = 4096+2048+1024+512+256+128+64+32+16+8+4+2+1 = 8191

100000000001 = 4096+1 = 4097

10101011110000 = 8192+2048+512+128+64+32+16 = 10992

Hexadecimal
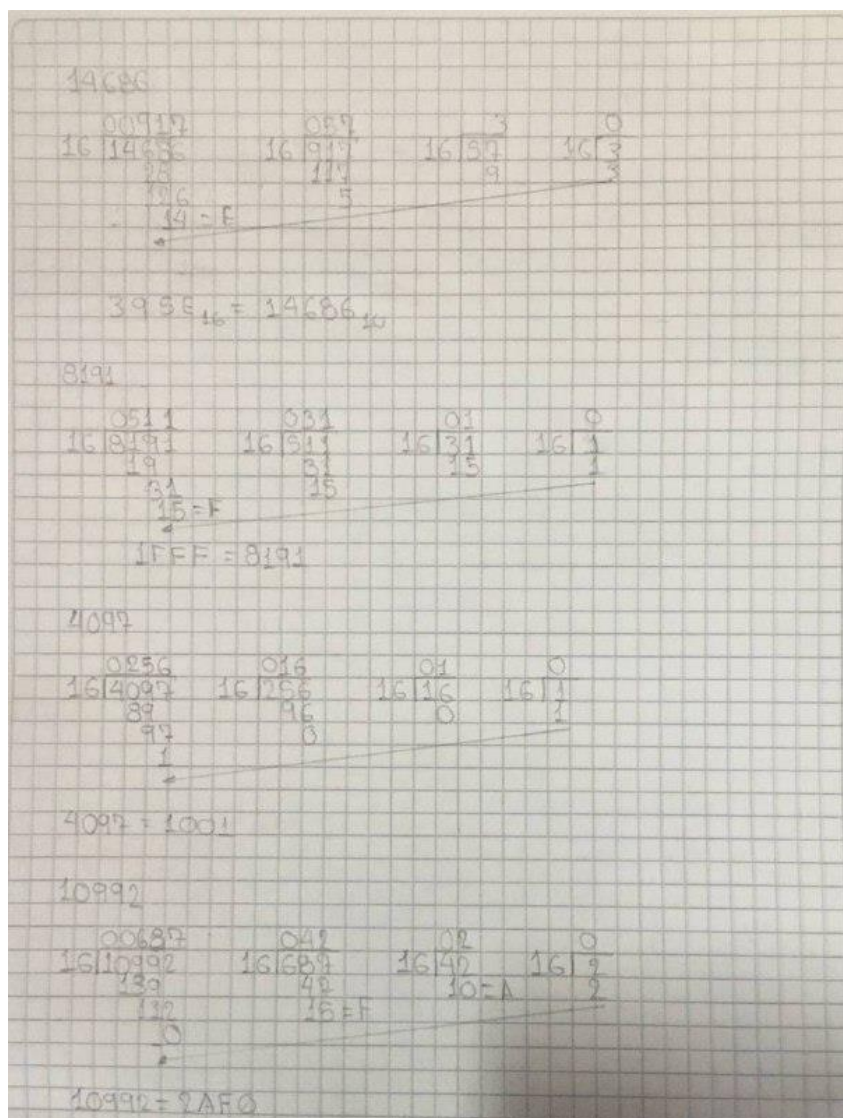
14686 = 395E

8191 = 1FFF

4097 = 1001

10992 = 2AF0

3.

Decimal	Binario	Hexadecimal
0	0	0
1	1	1
2	10	2
3	11	3
4	100	4
5	101	5
6	110	6
7	111	7
8	1000	8
9	1001	9
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F
16	10000	10
17	10001	11
18	10010	12
19	10011	13
20	10100	14
21	10101	15
22	10110	16
23	10111	17
24	11000	18
25	11001	19
26	11010	1A
27	11011	1B
28	11100	1C
29	11101	1D
30	11110	1E
31	11111	1F
32	100000	20

4.

19F

19 F
2 1 0

$16^0 = 1$

$16^1 = 16$

$16^2 = 256$

$1 \times 16^2 = 256$

$9 \times 16^1 = 144$

$F \times 16^0 = 15$

415

19F = 415

19F=415