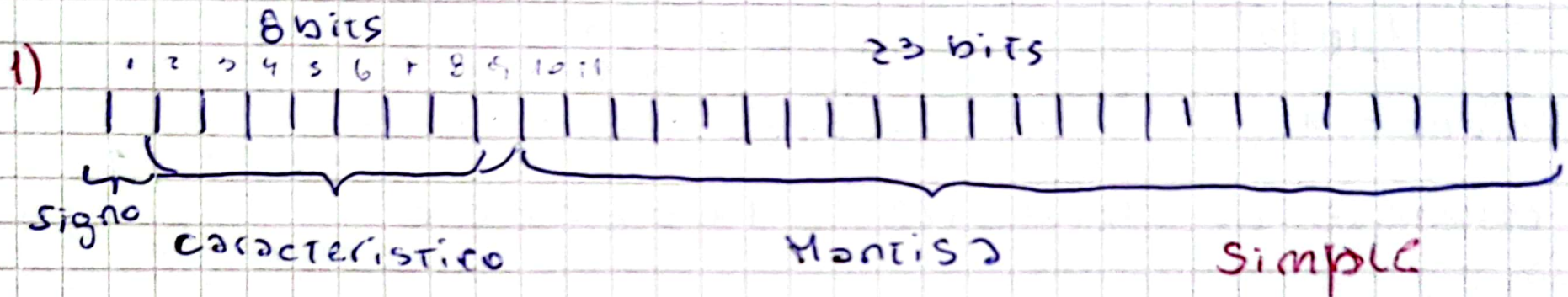
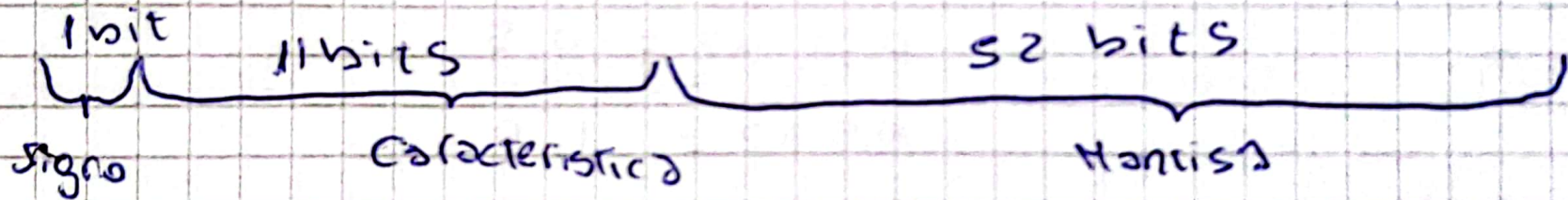


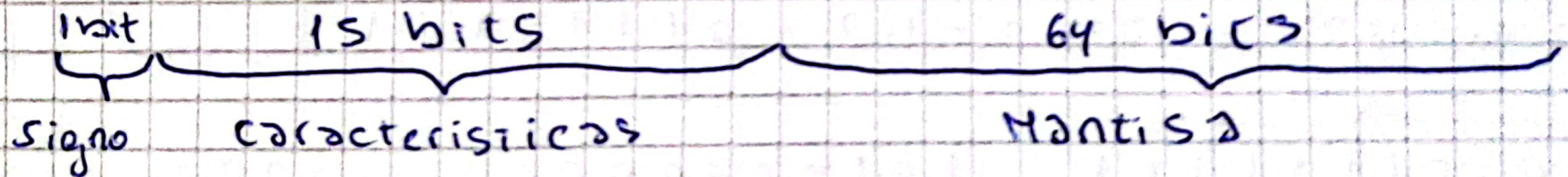
Tarea



Doble



Extendido



Trabajo Práctico Nº 4

$$2) 2) + 16$$

$$\begin{array}{r} 16 \overline{) 2} \\ 0 8 \overline{) 2} \\ 0 4 \overline{) 2} \\ 0 2 \overline{) 2} \\ 0 1 \overline{) 2} \\ 1 0 \end{array}$$

$$\begin{array}{r} 10009 \\ 101 \\ 10 \end{array}$$

$$\text{Signo} = 0$$

characteristic = $127 + 4 = 131$

10000011

Monti22 = 000000000000000000000000

9

0 1 00000 11 000.00 000.00 000.00 000.00 000.00 000.00 000.00 000.00

b) -0,01

$$0,1 \times 2 = 0,2$$

$$0,2 \times 2 = 0,4$$

$$0,4 \times 2 = 0,8$$

$$0,8 \times 2 = 1,6$$

$$0,6 \times 2 = 01,2$$

$$0,2 \times 2 = 0,4$$

$$0, \overbrace{00011}$$

$$1, \overbrace{100110011} \cdot 10^{-100}$$

$$\text{Signo} = -1$$

Característica = $127 - 4 = 123$

0111 1011

mantissa = 1 011 101 100 1100 1100 1100 1100

c) 0,4

$$\begin{aligned}0,4 \times 2 &= 0,8 \\0,8 \times 2 &= 1,6 \\0,6 \times 2 &= 1,2 \\0,2 \times 2 &= 0,4 \\0,4 \times 2 &= 0,8\end{aligned}$$

$$\begin{aligned}&0,01100 \\&1,10011 \times 10^{-10}\end{aligned}$$

Signo = 0

características = $127 - 2 = 125$

0111101

maniza 10011001100110011001100

0 0111101 10011001100110011001100

d) -0,05

$$\begin{aligned}0,05 \times 2 &= 0,1 \\0,1 \times 2 &= 0,2 \\0,2 \times 2 &= 0,4 \\0,4 \times 2 &= 0,8 \\0,8 \times 2 &= 1,6 \\0,6 \times 2 &= 1,2 \\0,2 \times 2 &= 0,4\end{aligned}$$

$$0,0000110$$

$$1,1001100 \cdot 10^{-101}$$

Signo = 1

características $\Rightarrow 127 - 5 = 122$

01111010

maniza 10011001100110011001100

e) 3,25

101,01

$1,01010 \cdot 10^{10}$

$$0,25 \times 2 = 0,5$$

$$0,5 \times 2 = 1,0$$

Signo = 1

característica = $127 + 1 = 128$

10000000

1 10000000 1010000000000000000000000000

3) $0x41800000_{16} \mid 16_{10}$

$0xB0CCCC_{16} \mid -0,1_{10}$

$0x3ECCCC_{16} \mid 0,4_{10}$

$0xB24CCCC_{16} \mid -0,05_{10}$

$0x40500000_{16} \mid 3,25_{10}$

$0x43800000_{16} \mid 256_{10}$

4) 89320000h

8	9	3	2	0	0	0	0
1000	1001	0011	0010	0000	0000	0000	0000

Punto Fijo

1000 1001 0011 0010 0000 0000 0000 0000

$$2^{31} + 2^{28} + 2^{25} + 2^{24} + 2^{21} + 2^{16} = 2301755992$$

Punto Fijo con signo

1000	1001	0011	0010	0000000000000000
0111	0110	1100	1101	1111111111111111
111	0110	1100	1111	0000000000000000

$$0111\ 0110\ 1100\ 1110000\ 0000\ 0000\ 0000 = -1993211904$$

coms Flotante

$$-1, 0110010 \cdot 2^{-108\ 1101101}$$

$$-0, 10110010 \cdot 2^{-1101100} \rightarrow \text{número muy cercano a 0}$$

$$5) \quad 0\ 10101100100100011000000000000000$$

$$1, 01011001001000110000000000000000 \quad \times 2^{10} \quad 11110$$

$$127+30 = 157 \rightarrow 10011101$$

$$0\ 10011101\ 010110010010001100000000$$

$$6) \quad \begin{array}{cccccccc} 3 & E & D & 0 & 0 & 0 & 0 & 0 \\ 0011 & 1110 & 1101 & 0000 & 0000 & 0000 & 0000 & 0000 \end{array}$$

7) a) $+0,4 + 0,1 = 0,5_{10}$

$0,1_{10} = 0,00011_2$ $0,4_{10} = 0,0110_2$

$0,1_{10} \rightarrow 1,10011 \times 10^{-100} \rightarrow 0,01100 \cdot 10^{-10}$

$0,4_{10} \rightarrow 1,100110 \times 10^{-10}$

$$\begin{array}{r} 1,1001100 \\ 0,0110011 \\ \hline 10,1111111 \end{array}$$

$(274,2) = 125_{16} \rightarrow 0111101$

0 0111101 1111111111111111111111

b) $18 + (-8)$

$18_{10} \rightarrow 10010$

$-8 \rightarrow 1000$

$1,0010 \cdot 10^{100}$

$- 0,01000 \cdot 10^{100}$

$$\begin{array}{r} 01,10010 \\ - 0,1000 \\ \hline 1,1010 \end{array}$$

$0,1010 \cdot 10^{100} \rightarrow 1010_2 \rightarrow 10_{10}$

0 10000010

010000000000000000000000