a) 15,25

+/-	64	32	16	8	4	2	1								
0	1	0	0	0	1	0	0	1	1	1	1	0	1	0	0

Expo
15,25 × 2⁰ = 15,25

7.625

3.8125

1.90625

0.953125 × 2⁴ = 15,25

X - 64 = 4
68 = 64 + 4

Mantisa
0.953125 × 2 = 1.90625
0.90625 × 2 = 1.8125
0.8125 × 2 = 1.625
0.625 × 2 = 1.25
0.25 × 2 = 0.5
0.5 × 2 = 1
0 × 2 = 0
0 × 2 = 0

b) 9,37

+/-						2⁰									
0	1	0	0	0	1	0	1	1	0	0	1	0	1	0	1

9,37 × 2⁰ = 9.37

4,685

2.3425

1.17125

0.585625 × 2⁴ = 9.37

X = 68

0.585625 × 2 = 1.17125
0.17125 × 2 = 0.3425
0.3425 × 2 = 0.685
0.685 × 2 = 1.37
0.37 × 2 = 0.74
0.74 × 2 = 1.48
0.48 × 2 = 0.96
0.96 × 2 = 1.92

Almacenado: 0.58203125 × 2⁴ = 9.3125

c) -18,50

+/-						2°									
1	1	0	0	0	1	0	1	0	1	1	0	1	0	1	1

$-18,50 \times 2^0 = -18,50$

$- 9.25$

$- 4.625$

$- 2.3125$

$- 1.15625$

$-0.578125 \times 2^c = -18,50$

$X - 64 = 5$

$69 = 64 + 5$

$-0.578125 \times 2 = 1.15625$

$-0.15625 \times 2 = 0.3125$

$-0.3125 \times 2 = 0.625$

$-0.625 \times 2 = 1.25$

$-0.25 \times 2 = 0.5$

$-0.5 \times 2 = 1$

$0 \times 2 = 0$

$0 \times 2 = 0$

d) -7,42

+/-						2°									
1	1	0	0	0	0	1	1	0	0	0	1	0	0	1	0

$-7,42 \times 2^0 = -7,42$

$-3,71$

$-1,855$

$-0.9275 \times 2^3 = 7,42$

$X - 64 = 3$

$67 = 64 + 3$

$0.9275 \times 2 = 1.855$

$0.855 \times 2 = 1.71$

$0.71 \times 2 = 1.42$

$0.42 \times 2 \quad 0.84$

$0.84 \times 2 \quad 1.68$

$0.68 \times 2 \quad 1.36$

$0.36 \times 2 \quad 0.72$

$0.72 \times 2 \quad 1.44$

Almacenado $= 0.92578125 \times 2^3 = 7.40625$

e) 0.0055

0	0	1	1	1	0	1	1	0	0	1	0	1	1	0	1

0.0055×2^0

0.011

0.022

0.044

0.088

$0.176 \times 2^{-5} = 0.0055$

Expo

X - 64 = -5

59 = 64 - 5

Almacenado $= 0.1757812 \times 2^{-5} = 0.005493164$ ✓

0.176 × 2 = 0.352
0.352 × 2 = 0.704
0.704 × 2 = 1.408
0.408 × 2 = 0.816
0.816 × 2 = 1.632
0.632 × 2 = 1.264
0.264 × 2 = 0.528
0.528 × 2 = 1.056

f) 0.00099

0	0	1	1	1	0	0	1	0	0	1	0	0	0	0	0

$0.00099 \times 2^0 = 0.99 \times 10^{-3}$

0.00198

0.00396

0.00792

0.01584

0.03168

0.06336

0.12672×2^{-7}

X - 64 = -7

57 = 64 - 7

0.12672 × 2 = 0.25344
0.25344 × 2 = 0.50688
0.50688 × 2 = 1.01376
0.01376 × 2 = 0.02752
0.02752 × 2 = 0.05504
0.5504 × 2 = 0.11008
0.11008 × 2 = 0.22016
0.22016 × 2 = 0.44032

Almacenado $= 1/8 \times 2^{-7} = 0.000976562$ ✓

g) -0.0029

+/-

| ⊥ | 0 | ⊥ | ⊥ | ⊥ | 0 | ⊥ | 0 | ⊥ | ⊥ | 0 | ⊥ | 0 | 0 | 0 | 0 |

2^0

$-0.0029 \times 2^0 = -2.9 \times 10^{-3}$

-0.0058

-0.0116

-0.0232

-0.0464

-0.0928

$-0.1856 \times 2^{-6} = -2.9 \times 10^{-3}$

$X - 64 = -6$

$58 = 64 - 6$

$0.1856 \times 2 = 0.3712$

$0.3712 \times 2 = 0.7424$

$0.7424 \times 2 = 1.4848$

$0.4848 \times 2 = 0.9696$

$0.9696 \times 2 = 1.9392$

$0.9392 \times 2 = 1.8784$

$0.8784 \times 2 = 1.7568$

$0.7568 \times 2 = 1.5136$

Almacenado $= 0.18359375 \times 2^{-6} = 0.00286866$