Laboratorio 0.5
AC/DC

Camilo Villalobos

1. Sistemas numericos

1.1 Base 10 a Binario

a) -50

50/2	25/2	12/2	6/2	3/2	1/2		
0	1	0	0	1	1	=	00110010

00110010 = 11001101 (complemento 2) +1 = **11001110**

b) 182

182/2	91/2	45/2	22/2	11/2	5/2	2/2	1/2		
0	1	1	0	1	1	0	1	=	**010110110**

c) 98

98/2	49/2	24/2	12/2	6/2	3/2	½		
0	1	0	0	0	1	1	=	**01100010**

1.2 Hexadecimal a binario

a) 45DE

      E: 1110   =   **<u>0100011011011110</u>**
      D: 1101
      5: 0110
      4: 0100

b) FEEC

      C: 1100   =   **<u>1111111011101100</u>**
      E: 1110
      E: 1110
      F: 1111

c) CAFÉ

      E: 1110   =   **<u>1100101011111110</u>**
      F: 1111
      A: 1010
      C: 1100

d) 8AC

      C: 1100   =   **<u>100010101100</u>**
      A: 1010
      8: 1000

e) FFFF

      F: 1111   =   **<u>1111111111111111</u>**
      F: 1111
      F: 1111
      F: 1111

1.3 Binario a Decimal

a) 1011100011010101

$0100011100101010 + 1 = 0100011100101011$

$2^{14} + 2^{10} + 2^9 + 2^8 + 2^5 + 2^3 + 2^1 + 2^0 =$ -**18219**

b) 00101011101011

$2^{11} + 2^9 + 2^7 + 2^6 + 2^5 + 2^3 + 2^1 + 2^0 = \underline{\textbf{2795}}$

c) 1001101

$0110010 + 1 = 0110011$

$2^5 + 2^4 + 2^1 + 2^0 = \underline{\textbf{- 51}}$