SISTEMA BINARIO→ AL DECIMAL

$(1001) = (9)_{10}$

$= 1*2^3 + 0*2^2 + 0*2^1 + 1*2^0$

$= 8 + 0 + 0 + 1$

$= 9$

$(1110\ 11101)_2 = 1*2^8 + 1*2^7 + 1*2^6 + 0*2^5 + 1*2^4 + 1*2^3 + 1*2^2 + 0*2^1 + 1*2^0$

$= 256 + 128 + 64 + 0 + 16 + 8 + 4 + 4 + 4$

$= 477$

$(101.01)_2 = 1*2^2 + 0*2^1 + 1*2^0 + 0*2^{-1} + 1*2^{-2}$

$= 4 + 0 + 1 + 0 + 0.25$

$= 5.25$

SISTEMA OCTAL→ AL DECIMAL

$(12)_8 = 1*8^1 + 2*8^0$

$= 8 + 2$

$= 10$

$(3265)8 = 3*8^3 + 2*8^2 + 6*8^1 + 5*8^0$

$= 1536 + 128 + 48 + 5$

$= 1717$

SISTEMA HEXADECIMAL→ AL DECIMAL

$(FEA)_{16} = F*16^2 + E*16^1 + A*16^0$

$= 3840 + 224 + 10$

$= 4074$

A=10
B=11
C=12
D=13
E=14
F=15

$(23DC)_{16} = 2*16^3 + 3*16^2 + D*16^1 + C*16^0$

$= 8192 + 768 + 208 + 12$

$= 9180$

DECIMAL A OTRO SISTEMA

$(13)_{10}$ = 13/2 = 6; 6/2 = 3; 3/2 = 1; 1/2 = 0

(1) (0) (1) (1)

$(11)_{10}$ = 11/2 = 5; 5/2 = 2; 2/2 = 1; 1/2 = 0

(1) (1) (0) (1)

$(25)_{10}$ = 25/2 = 12; 12/2 = 6; 6/2 = 3; 3/2 =1; 1/2 = 0

(1) (0) (0) (1) (1)

$(307)_{10}$ =307/2 = 153; 153/2 = 76; 76/2 = 38; 38/2 = 19; 19/2 =9; 9/2 = 4; 4/2 = 2;

(1) (1) (0) (0) (1) (1) (0)

2/2 =1; 1/2 =0

(0) (1)

UTILIZANDO EL METODO DE LA POTENCIA DE 2

512	256	128	64	32	16	8	4	2	1	0.5	025	
2^9	2^8	2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0	2^{-1}	2^{-2}	
						1	1	0	1			13
					1	1	0	0	1			25
						1	0	1	1			11
	1	0	0	1	1	0	0	1	1			307

$(13)_{10} = (1101)_2$

CONVERSIÓN DE DECIMAL A HEXADECIMAL

$(4074)_{10}$ = (FEA) $_{16}$

4074/16 = 254; 254/16 = 15; 15/16 = 0

10	**14**	**15**
A	**E**	**F**

$(1864)_{10}$ = (74D) $_{16}$

1864/16 = 116; 116/16 = 7; 7/16 = 0

13	**4**	**7**
D	**4**	**7**

DECIMAL→ BINARIO(/)

HEXA

OCTAL

BINARIO→DECIMAL (*)

REALICE LAS SIGUIENTES CONVERSIONES INDICADAS

1. **$(38)_{10} = (100110)_2$**
2. **$(324)_{10} = (504)_8$**
3. **$(115)_{10} = (73)_{16}$**
4. **$(431)_{10} = (657)_8$**
5. **$(222)_{10} = (11011110)_2$**
6. **$(3453)_{10} = (D7D)_{16}$**
7. **$(11011)_2 = (27)_{10}$**
8. **$(11111)_2 = (31)_{10}$**
9. **$(10101010)_2 = (879)_{10}$**
10. **$(1101101111)_2 = (879)_{10}$**

11. $(621)_{10} = (1155)_8$
12. $(456)_{10} = (111001000)_2$
13. $(11010)_2 = (26)_{10}$
14. $(CAFÉ)_{16} = (11810780)_{10}$
15. $(3421)_8 = (6535)_{10}$
16. $(F32A)_{16} = (256710)_{10}$
17. $(21E)_{16} = (842)_{10}$
18. $(12345)_8 = (30071)_{10}$
19. $(2112)_3 = (1020020)_{10}$
20. $(813)_9 = (1103)_{10}$

CONVERTIR DE OCTAL A BINARIO

$(351)_8 = (11101001)_2$

TOMAR CADA DIGITO A SUS TRES CIFRAS BINARIAS

2 = 011

5 = 101

1 = 001

$(765)_8 = (111110101)_2$

$(11132)_8 = (1001001011010)_2$

$(3524)_8 = (11101010100)_2$

BINARIO A OCTAL

(11|101|010|100)2 = (3524)8

3 5 2 4

(10|101|101|101|010)2 = (25552)8

2 5 5 5 2

(1|111|011)2 = (173)8

1 7 3

(101011101101111001110)2 = (5355716)8

5 3 5 5 7 1 6

BINARIO→ HEXADECIMAL

(1010111)2 = (57)16

(101111111111)2 = (BFF)16

(111001010)2 = (1CA)16

(1101010101010)2 = (1AAA)16

OCTAL→ A HEXADECIMAL

(53)8 = (101011)2 = (2B)16

(1762)8 = (1111110010)2 = (3F2)16

HEXADECIMAL A BINARIO

(3AF)16 = (1110101111)2

(153)16 = (101010011)2

(1C13)16 = (1110000010011)2

HEXADECIMAL A OCTAL

(3F2)16 = (1111110010)2 = (1762)8

(FEO)16 = (111111100100)2 = (7740)8

(FEA)16 = (111111101010)2 = (7752)8

REALICE LAS SIGUIENTES CONVERSIONES

(35)10 = (100011)2

(24)10 = (30)8

(101)10 = (65)16

(100101)2 = (37)10

(1010111)2 = (127)8

(11011011011)2 = (6DB)16

(751)8 = (489)10

(1037)8 = (1000011111)2 = (21F)8

(175)8 = (1111101)2

(7A5)16 = (11110100101)2

(10F2)16 = (4338)10

(AEF3)16 = (1010111011110011)2 = (127363)8