UF1. Introducció als Sistemes Operatius. Creació de màquines virtuals.

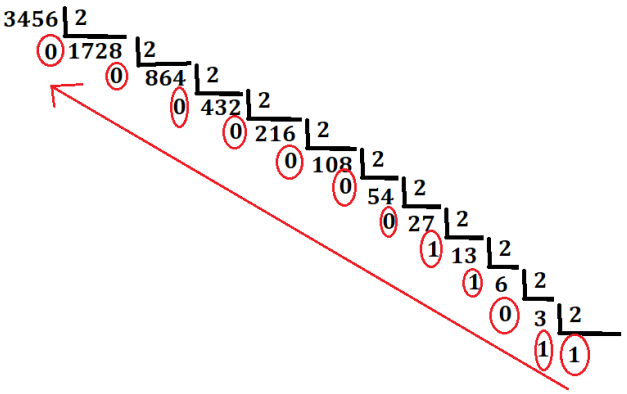
Conversiones entre Sistemas de Numeración

Realiza las siguientes operaciones :

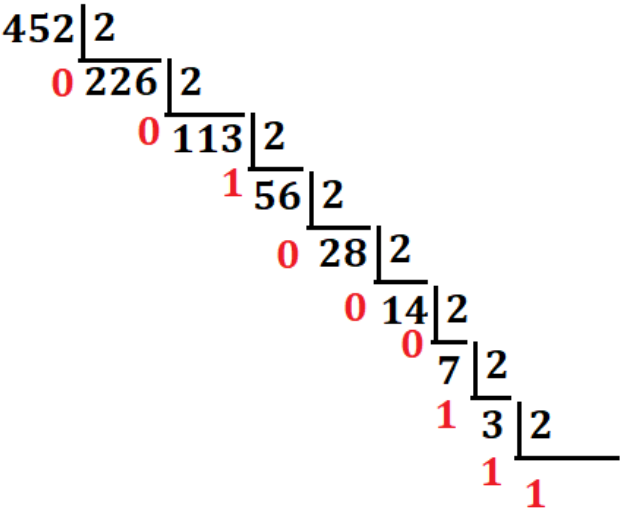
1)Conversión a Binario

a)Decimal-Binario

$3456_{(10}$ = **110110000000**



$452_{(10}$ = **111000100**



b)Octal-Binario

OCTAL	0	1	2	3	4	5	6	7
BINARIO	000	001	010	011	100	101	110	111

$3562_{(8}$ 3=011 5=101 6=110 2=010 = **11101110010**

$56432_{(8}$ 5=101 6=110 4=100 3=011 2=010 = **101110100011010**

$45227_{(8}$ 4=100 5=101 2=010 2=010 7=111 = **100101010010111**

c) Hexadecimal-Binario

BINARIO	0000	0001	0010	0011	0100	0101	0110	0111
HEXADECIMAL	0	1	2	3	4	5	6	7

BINARIO	1000	1001	1010	1011	1100	1101	1110	1111
HEXADECIMAL	8	9	A	B	C	D	E	F

$A567BC_{(16}$ A=1010 5=0101 6=0110 7=0111 B=1011 C=1100
= **101001010110011110111100**

$34DDA24_{(16}$ 3=0011 4=0100 D=1101 D=1101 A=1010 2=0010
4=0100 = **110100110111011010000100100**

2) Conversiones a decimal

a)Binario-Decimal

$10011100_{(2}$ 2^7+2^4+2^3+2^2 = 128+16+8+4= **156** $_{(10}$

$11100011_{(2}$ 2^7+2^6+2^5+2^1+2^0 = 128+64+32+2+1= **227** $_{(10}$

$110011011_{(2}$ 2^8+2^7+2^4+2^3+2^1+2^0 = 256+128+16+8+2+1= **411 (10**

$100011110_{(2}$ 2^8+2^4+2^3+2^2+2^1=256+16+8+4+2= **286 (10**

b)Octal-Decimal

$4562_{(8} = 4\times8^3+5\times8^2+6\times8^1+2\times8^0 =$ **2418 (10**

$36_{(8} =3\times8^1+6\times8^0 =$ **30 (10**

$342_{(8} = 3\times8^2+4\times8^1+2\times8^0 =$ **226 (10**

c)Hexadecimal-Decimal

$872_{(16}$ = 8x16^2+7x16^1+2x16^1= 8x256+7x16+2x1= 2048+112+2= **2162 (10**

$453_{(16}$ = 4x16^2+5x16^1+3x16^0= 4x256+5x16+3x1= 1024+80+3= **1108 (10**

$543_{(16}$ = 5x16^2+4x16^1+3x16^0= 5x256+4x16+3x1= 1280+64+3= **1347 (10**