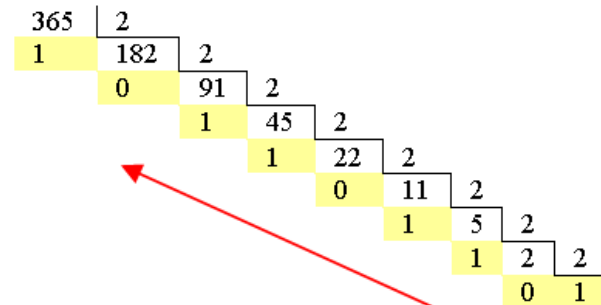


■ Cambios de base

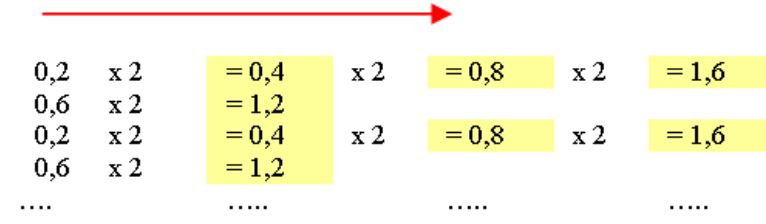
•  $365,2_{10}$

*Decimal a binario:*

Parte entera



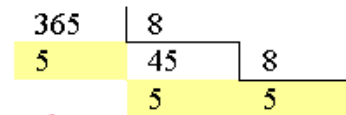
Parte decimal



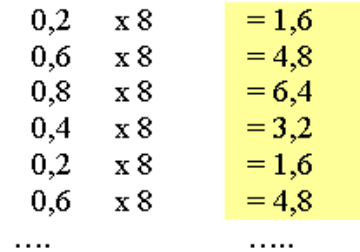
$365,2_{10} = 101101101,0011_2$

*Decimal a octal:*

Parte entera



Parte decimal



$365,2_{10} = 555,1463_8$

■ Cambios de base

***Decimal a hexadecimal:***

Parte entera

365	16	
13	22	16
	6	1



$365,2_{10} = 16D,33_{16}$

Parte decimal

0,2	x 16	= 3,2
0,2	x 16	= 3,2
0,2	x 16	= 3,2
....		.....



● ***101101,1101<sub>2</sub>***

***Binario a decimal:***

$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$	$2^{-1}$	$2^{-2}$	$2^{-3}$	$2^{-4}$	Suma
x 1	x 0	x 1	x 1	x 0	x 1	x 1	x 1	x 0	x 1	
32	0	8	4	0	1	0,5	0,25	0	0,0625	= 45,8125

$101101,1101_2 = 45,8125_{10}$

■ Cambios de base

*Binario a octal:*

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

$101101,1101_2 = 55,64_8$

*Binario a hexadecimal:*

Octal	0	1	2	3	4	5	6	7	10	11	12	13	14	15	16	17
Hexadecimal	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Binario	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111

$101101,1101_2 = 2D,D_{16}$

- $5F, E_{16}$

*Hexadecimal a decimal:*

$16^1$	$16^0$	$16^{-1}$	Suma
x 5	x 15	x 14	
80	15	0,125	= 95,875

$5F, E_{16} = 95,875_{10}$

*Hexadecimal a binario:*

$5F, E_{16} = 01011111,1110_2$

*Hexadecimal a octal:*

$5F, E_{16} = 01011111,1110_2 = 137,7_8$

## ■ Cambios de base

- **$34,2_8$**

*Octal a decimal:*

$8^1$	$8^0$	$8^{-1}$	Suma
$\times 3$	$\times 4$	$\times 2$	
24	4	0,25	= 28,25

$$34,2_8 = 28,25_{10}$$

*Octal a binario:*

$$34,2_8 = 011100,010_2$$

*Octal a hexadecimal:*

Según tabla:

Octal	0	1	2	3	4	5	6	7	10	11	12	13	14	15	16	17
Hexadecimal	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Binario	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111

$$34,2_8 = 011100,010_2 = 1C,4_{16}$$

## ■ Operaciones

- $1101101,1101_2 + 1111,0001_2$

$$\begin{array}{r}
 \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 + \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 \hline
 \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{0} \quad \mathbf{0} \quad , \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{0} \phantom{2}
 \end{array}$$

- $1101101,1101_2 - 1111,0001_2$

$$\begin{array}{r}
 \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 - \phantom{11} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{,} \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{2} \\
 \hline
 \mathbf{1} \quad \mathbf{0} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{0} \quad , \quad \mathbf{1} \quad \mathbf{1} \quad \mathbf{0} \quad \mathbf{0} \phantom{2}
 \end{array}$$

- Operaciones

- $101101_2 \times 101_2$

$$\begin{array}{r}
 101101_2 \\
 \times 101_2 \\
 \hline
 101101 \\
 000000 \\
 + 101101 \\
 \hline
 11100001_2
 \end{array}$$

- $101101_2 : 101_2$

$$\begin{array}{r}
 101101_2 \quad | \quad 101_2 \\
 - 101 \\
 \hline
 000101 \\
 \quad - 101 \\
 \quad \hline
 \quad 000
 \end{array}$$

- Operaciones

- $AB5C_{16} + FF6_{16}$

$$\begin{array}{r}
 \phantom{+} \phantom{A} \phantom{B} \phantom{5} \phantom{C}_{16} \\
 + \phantom{A} \phantom{B} \phantom{5} \phantom{C}_{16} \\
 \hline
 \mathbf{B} \quad \mathbf{B} \quad \mathbf{5} \quad \mathbf{2}_{16}
 \end{array}$$

- $357_8 - 77_8$

$$\begin{array}{r}
 \phantom{-} \phantom{3} \phantom{5} \phantom{7}_8 \\
 - \phantom{3} \phantom{5} \phantom{7}_8 \\
 \hline
 \mathbf{2} \quad \mathbf{6} \quad \mathbf{0}_8
 \end{array}$$