Sistema binario, base 2, 2 símbolos: 0 y 1 – Base 2 = 21

Sistema octal, base 8, 8 simbolos:0, 1, 2, 3, 4, 5, 6, 7, 8 – Base 2 = 23

Sistema decimal base 10, 10 símbolos: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Sistema hexadecimal, base 16, 16 símbolo: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F – Base 2 = 24

Sistema decimal

Posición-potencia-pesos

0 – 100 – 1

6 – 106 – 1000000

Sistema binario

1 – 20 –

- 28 - 256

Pesos

**2048 1024 512 256 128 64 32 16 8 4 2 1**

**211 210 29 28 27 26 25 24 23 22 21 20**

**0 0 0 0 1 1 0 0 1 0 0 0**

**Octal**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **F** | **E** | **D** | **C** | **B** | **A** | **9** | **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** |
| **15** | **14** | **13** | **12** | **11** | **10** | **9** | **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** |
| **1111** | **1110** | **1101** | **1100** | **1011** | **1010** | **1001** | **1000** | **0111** | **0110** | **0101** | **0100** | **0011** | **0010** | **0001** |

**15 14 13 12 11 10 9 8 7 6 5 4 3 2 1**

**F E D C B A 9 8 7 6 5 4 3 2 1**

**Decimal a binario**

**Decimal a octal**

**Decimal a hexadecimal**

**Binario a decimal**

**Binario a octal:** dividir de 3 en tres desde la derecha y asignar el valor

111 101 001 0002

7 5 1 08

**Binario a Hexadecimal**

1111 0100 10002

F 4 816

|  |  |  |
| --- | --- | --- |
| X | Y | AND |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| X | Y | OR |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| X | Y | XOR |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

|  |  |  |
| --- | --- | --- |
| X | Y | NOT |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |