

**Sistemas de numeración**

**Solución integradora**

## Microdesafíos - Grupo I

1. Armar una tabla en donde podamos visualizar los sistemas numéricos **binario** y **octal**.
2. Generar los primeros 20 números y su traducción en el otro sistema.

|  |  |  |  |
| --- | --- | --- | --- |
| **Decimal** | **Binario** | **Octal** | **Hexadecimal** |
| 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 |
| 2 | 10 | 2 | 2 |
| 3 | 11 | 3 | 3 |
| 4 | 100 | 4 | 4 |
| 5 | 101 | 5 | 5 |
| 6 | 110 | 6 | 6 |
| 7 | 111 | 7 | 7 |
| 8 | 1000 | 10 | 8 |
| 9 | 1001 | 11 | 9 |
| 10 | 1010 | 12 | A |
| 11 | 1011 | 13 | B |
| 12 | 1100 | 14 | C |
| 13 | 1101 | 15 | D |
| 14 | 1110 | 16 | E |
| 15 | 1111 | 17 | F |
| 16 | 10000 | 20 | 10 |
| 17 | 10001 | 21 | 11 |
| 18 | 10010 | 22 | 12 |
| 19 | 10011 | 23 | 13 |

3. Convertir los siguientes números en **binario** al sistema **octal**:

* + **0101110**
  + **01101001**
  + **10110**
  + **100101**
  + **001010111**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BINARIO |  |  |  | OCTAL |
| 0101110 | 000 | 101 | 110 | 56 |
|  | 0 | 5 | 6 |  |
|  |  |  |  |  |
| 01101001 | 001 | 101 | 001 | 151 |
|  | 1 | 5 | 1 |  |
|  |  |  |  |  |
| 10110 | 010 | 110 |  | 26 |
|  | 2 | 6 |  |  |
|  |  |  |  |  |
| 100101 | 100 | 101 |  | 45 |
|  | 4 | 5 |  |  |
|  |  |  |  |  |
| 001010111 | 001 | 010 | 111 | 127 |
|  | 1 | 2 | 7 |  |