# Exercícios de conversão entre bases numéricas

1- Converta os números abaixo, que estão em Decimal, para Binário.

1. 50 110010
2. 77 1001101
3. 123 1111011
4. 113 1110001
5. 223 11011111
6. 248 11111000

2- Converta os números abaixo, que estão em Binário, para Decimal.

1. 01011010 90
2. 11111000 248
3. 10101100 172
4. 10010001 145
5. 00011110 30

3- Suponha um processador de 16bits que possui as seguintes instruções:

* SOMAR – 0100
* SUBTRAIR – 0110

O formato da instrução deste processador é:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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[ i n s t r u ç ã o ] [ n ú m e r o 1 ] [ n ú m e r o 2 ]

Preencha os espaços em branco, no formato binário, de acordo com a instrução e com os valores indicados. Feito isso, indique o resultado de cada operação.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **1** | **1** | **0** | **0** | **0** | **1** | **1** | **1** |
| **SOMAR** | | | | **11** | | | | | | **7** | | | | | |
|  | | | | **Resultado** | | | | | | **0** | **1** | **0** | **0** | **1** | **0** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **1** | **1** | **0** | **1** | **1** | **0** | **0** | **1** |
| **SOMAR** | | | | **7** | | | | | | **25** | | | | | |
|  | | | | **Resultado** | | | | | | **1** | **0** | **0** | **0** | **0** | **0** |

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| **0** | **1** | **1** | **0** | **0** | **0** | **1** | **1** | **0** | **1** | **0** | **0** | **0** | **1** | **0** | **0** |
| **SUBTRAIR** | | | | **13** | | | | | | **4** | | | | | |
|  | | | | **Resultado** | | | | | | **0** | **0** | **1** | **0** | **0** | **1** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | **1** | **1** | **0** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **0** |
| **SUBTRAIR** | | | | **14** | | | | | | **4** | | | | | |
|  | | | | **Resultado** | | | | | | **0** | **0** | **1** | **0** | **1** | **0** |

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| **0** | **1** | **1** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **1** | **1** |
| **SUBTRAIR** | | | | **28** | | | | | | **7** | | | | | |
|  | | | | **Resultado** | | | | | | **0** | **1** | **0** | **1** | **0** | **1** |