UD1 - PRÁCTICA 2: EQUIVALENCIAS BINARIO – DECIMAL

Pasar los siguientes números de binario a decimal:

1. 11002
2. 112
3. 111002
4. 1111002
5. 1010102
6. 1111112
7. 1000012
8. 1110002
9. 111100011112
10. 11100,0112
11. 110011,100112
12. 1010101010,12
13. 11002

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| --- | --- | --- | --- | --- |
| EXPONENTE | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 0 | 0 |
| VALOR EXPONENTE | 8 | 4 | 2 | 1 |
| VALOR REAL | 8 | 4 | 0 | 0 |
| N. DECIMAL | 12­­­10 | | | |

1. 112

|  |  |  |
| --- | --- | --- |
| EXPONENTE | 21 | 20 |
| N. BINARIO | 1 | 1 |
| VALOR EXPONENTE | 2 | 1 |
| VALOR REAL | 2 | 1 |
| N. DECIMAL | 310 | |

1. 111002

|  |  |  |  |  |  |
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| EXPONENTE | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 1 | 0 | 0 |
| VALOR EXPONENTE | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 16 | 8 | 4 | 0 | 0 |
| N. DECIMAL | 2810 | | | | |

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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 1 | 1 | 0 | 0 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 32 | 16 | 8 | 4 | 0 | 0 |
| N. DECIMAL | 6010 | | | | | |

1. 1111002

|  |  |  |  |  |  |  |
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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 0 | 1 | 0 | 1 | 0 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 32 | 0 | 8 | 0 | 2 | 0 |
| N. DECIMAL | 4210 | | | | | |

1. 1010102

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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 1 | 1 | 1 | 1 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 32 | 16 | 8 | 4 | 2 | 1 |
| N. DECIMAL | 6310 | | | | | |

1. 1111112

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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 0 | 0 | 0 | 0 | 1 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 32 | 0 | 0 | 0 | 0 | 1 |
| N. DECIMAL | 3310 | | | | | |

1. 1000012

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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 1 | 0 | 0 | 0 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 32 | 16 | 8 | 0 | 0 | 0 |
| N. DECIMAL | 5610 | | | | | |

1. 1110002
2. 111100011112

|  |  |  |  |  |  |  |  |  |  |  |  |
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| EXPONENTE | 210 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 |
| N. BINARIO | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| VALOR EXPONENTE | 1024 | 512 | 256 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| VALOR REAL | 1024 | 512 | 256 | 128 | 0 | 0 | 0 | 8 | 4 | 2 | 1 |
| N. DECIMAL | 193510 | | | | | | | | | | |

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| EXPONENTE | 24 | 23 | 22 | 21 | 20 |  | 2-1 | 2-2 | 2-3 |
| N. BINARIO | 1 | 1 | 1 | 0 | 0 | , | 0 | 1 | 1 |
| VALOR EXPONENTE | 16 | 8 | 4 | 2 | 1 |  | 0,5 | 0,25 | 0,125 |
| VALOR REAL | 16 | 8 | 4 | 0 | 0 | , | 0 | 0,25 | 0,125 |
| N. DECIMAL | 28 | | | | | , | 37510 | | |

1. 11100,0112
2. 110011,100112

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| EXPONENTE | 25 | 24 | 23 | 22 | 21 | 20 |  | 2-1 | 2-2 | 2-3 | 2-4 | 2-5 |
| N. BINARIO | 1 | 1 | 0 | 0 | 1 | 1 | , | 1 | 0 | 0 | 1 | 1 |
| VALOR EXPONENTE | 32 | 16 | 8 | 4 | 2 | 1 |  | 0,5 | 0,25 | 0,125 | 0,0625 | 0,03125 |
| VALOR REAL | 32 | 16 | 0 | 0 | 2 | 1 | , | 0,5 | 0 | 0 | 0,0625 | 0,03125 |
| N. DECIMAL | 51 | | | | | | , | 5937510 | | | | |

1. 1010101010,12

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| EXPONENTE | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 |  | 2-1 |
| N. BINARIO | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | , | 1 |
| VALOR EXPONENTE | 512 | 256 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  | 0,5 |
| VALOR REAL | 512 | 0 | 128 | 0 | 32 | 0 | 8 | 0 | 2 | 0 | , | 0,5 |
| N. DECIMAL | 682 | | | | | | | | | | , | 510 |