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مبانی کامپیوتر (۱)

مهرشاد ابراهیمی

$173 = (1010\,1101)_2$

173 \| 2
16 86 \| 2
13 6 43 \| 2
12 6 42 21 \| 2
1 0 1 20 10 \| 2
1 0 5 \| 2
1 2 \| 2
0 1 \| 2
1 0

$23,25 = (1011,01)_2$

23 \| 2
22 11 \| 2
1 10 5 \| 2
1 4 2 \| 2
1 0 1 \| 2
1 0

$0.25 \times 2 = 0,5$
$0.5 \times 2 = 1,0$ → $0,01$

$3.73 \simeq (11,1011)_2$

$0,73 \times 2 = 1,46$
$0,46 \times 2 = 0,92$
$0,92 \times 2 = 1.84$
$0,84 \times 2 = 1,68$
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3 \| 2
-2 1 \| 2
1 1 0

$(1001)_2 = (1\times2^3) + (0\times2^2) + (0\times2^1) + (1\times2^0) = 8+0+0+1 = (9)_{10}$

$(0\,1011,001)_2 = (0\times2^5) + (1\times2^4) + (1\times2^3) + (0\times2^2) + (1\times2^1) + (1\times2^0) + (0\times2^{-1}) + (0\times2^{-2}) + (1\times2^{-3}) =$

0 16 8 0 2 1 0 0 $\frac{1}{8} = 0,125$

$(27,125)_{10}$

$(AB1F)_{16} = (10\times16^3) + (11\times16^2) + (1\times16^1) + (15\times16^0) = (43807)_{20}$

40960 2816 16 15

$(73.19)_8 = (111,011.001,101)_2$

$(1001,011.011,010)_2 = (13.72)_8$

$(F2.35)_{16} = (1111,0010.0011,1101)_2$

$(10,1100.1)_2 = (2C.8)_{16}$