

MGF / Converting from base two to base ten

Worked Examples:

Ex

7 8 4
hundreds tens ones

$$(7 \times 10^2) + (8 \times 10^1) + (4 \times 10^0)$$

700 80 4
 Converting from base two to base ten

Write 1001101_{two} in the base-ten system.

Base 10
 $10^0 = 1$
 $10^1 = 10$
 $10^2 = 100$

1001101_{two} =

×

↶

right to left *Base 2*

$1 \times 2^0 = 1$	$1 \times 1 = 1$
$0 \times 2^1 = 0$	$0 \times 2 = 0$
$1 \times 2^2 = 4$	$1 \times 4 = 4$
$1 \times 2^3 = 8$	$1 \times 8 = 8$
$0 \times 2^4 = 0$	$0 \times 16 = 0$
$0 \times 2^5 = 0$	$0 \times 32 = 0$
$1 \times 2^6 = 64$	$1 \times 64 = 64$

+

79

#NumerationSystems

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