

Decimal

10000 10^4	1000 10^3	100 10^2	10 10^1	1 10^0	Value
	0	0	0	0	0
	0	0	0	1	1
	0	0	4	7	47
	9	9	9	9	9,999
1	0	0	0	0	10,000

Binary

[illegible]

Binary addition

[illegible]

Binary subtraction

[illegible]

Binary multiplication

[illegible]

Binary shift left

256 2^8	128 2^7	64 2^6	32 2^5	16 2^4	8 2^3	4 2^2	2 2^1	1 2^0	Value
	0	0	0	0	0	1	0	0	4
	0	0	0	0	1	0	0	0	8
	0	0	0	0	1	0	1	1	11
	0	0	0	1	0	1	1	0	22

Binary OR

256 2⁸	128 2⁷	64 2⁶	32 2⁵	16 2⁴	8 2³	4 2²	2 2¹	1 2⁰	Value
	0	0	0	0	0	1	0	0	4
OR	0	0	0	0	1	0	0	0	8
	0	0	0	0	1	1	0	0	12
OR	0	0	0	0	1	0	1	1	11
	0	0	0	0	1	1	1	1	15

Binary XOR

256 2⁸	128 2⁷	64 2⁶	32 2⁵	16 2⁴	8 2³	4 2²	2 2¹	1 2⁰	Value
	0	0	0	0	1	1	0	0	12
XOR	0	0	0	0	1	0	0	0	8
	0	0	0	0	0	1	0	0	4
XOR	0	0	0	0	0	1	1	1	7
	0	0	0	0	0	0	1	1	3

Binary XOR

256 2⁸	128 2⁷	64 2⁶	32 2⁵	16 2⁴	8 2³	4 2²	2 2¹	1 2⁰	Value
	0	0	0	0	1	1	0	0	12
XOR	0	0	0	0	1	0	0	0	8
	0	0	0	0	0	1	0	0	4
XOR	0	0	0	0	1	0	0	0	8
	0	0	0	0	1	1	0	0	12

Binary XOR

1	1	1	1
0	1	0	1
0	1	0	1
0	1	1	0
0	1	0	0

0	0	0	0
1	0	1	0
1	0	1	0
1	0	0	1
1	0	1	1