Source: KBPhysicsMasterIndex

1 | Digital Logic

1.1 | Binary

1011010.0 => $1 * 2^6 + 0 * 2^5 + 1 * 2^4 + 1 * 2^3 + 0 * 2^2 + 1 * 2^1 + 0 * 2^0$

- In binary, 2 conditions could represent all numbers
- Low Voltage => 0
- High Voltage => 1

1011010 + 011101

Here's a truth table:

Signal A	Signal B	A OR B	A AND B	A XOR B	A NOR B	A XNOR B
0	0	0	0	0	1	1
0	1	1	0	1	0	0
1	0	1	0	1	0	0
1	1	1	1	0	0	1

1.2 | Logic gates

OR Gates: a mystery?

1.3 | Binary Operations

- **A+B** => {A XOR B => ones digit; A AND B => carry digit}