1 | **Base System**

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

So, here's some binary operations using logic gates!

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