

# BINARY DIGITS REFERENCE CHART

## What is Binary?

A base-2 numbering system using only 0s and 1s. Each digit represents a power of 2.

## How to Read

From right to left, the positions represent: 1, 2, 4, 8, 16, 32, 64, 128.

0	00000000	0
1	00000001	$2^0$
2	00000010	$2^1$
3	00000011	$2^1 + 2^0$
4	00000100	$2^2$
5	00000101	$2^2 + 2^0$
10	00001010	$2^3 + 2^1$
16	00010000	$2^4$
32	00100000	$2^5$
64	01000000	$2^6$

100	<b>01100100</b>	64 + 32 + 4
128	<b>10000000</b>	2 <sup>7</sup>
255	<b>11111111</b>	Max Value (All On)

Educational Resource    1 bit = a single 0 or 1    8 bits = 1 byte