Binary

Humans count using a number system based on tens, probably because we have ten digits, but because computers are two state devices, it prefers a number system based on two digits, the binary number system.

Denary digits	Binary Digits
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	0, 1

In both systems you can count things:

Objects	Denary	Binary
	0	0
🐞	1	1
🐞 🐞	2	10
🐞 🐞 🐞	3	11
🐞 🐞 🐞 🐞	4	100
🐞 🐞 🐞 🐞 🐞	5	101
🐞 🐞 🐞 🐞 🐞 🐞	6	110
🐞 🐞 🐞 🐞 🐞 🐞 🐞	7	111
🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞	8	1000
🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞	9	1001
🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞	10	1010
🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞	11	1011
🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞 🐞	12	1100
etc	etc	etc

Denary

Number	1000's - 10^3	100's - 10^2	10's - 10^1	1's - 10^0
5672	5 thousand	6 hundred	7 seventy	2 two
2013	2 thousand	0 hundred	1 ten	3 three
465	0 thousand	4 hundred	6 sixty	5 five
9903	9 thousand	9 hundred	0 tens	3 three

Binary

Number	128's 2^7	64's 2^6	32's 2^5	16's 2^4	8's 2^3	4's 2^2	2's 2^1	1's 2^0	Denary equivalent
10110101	1	0	1	1	0	1	0	1	128+32+16+4+1 =181
10001010	1	0	0	0	1	0	1	0	128+8+2 =138
01011110	0	1	0	1	1	1	1	0	64 + 16 + 8 + 4 + 2 = 94
01100011	0	1	1	0	0	0	1	1	64 + 32 + 2 + 1 = 99