

# Numeral Systems

<b>DECIMAL</b>	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
	$10^7$	$10^6$	$10^5$	$10^4$	$10^3$	$10^2$	$10^1$	$10^0$
						4	2	0

<b>BINARY</b>	one twenty eights	sixty fours	thirty twos	sixteens	eights	fours	twos	ones
	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
	0	0	0	0	1	0	1	0

<b>HEXADECIMAL</b>				65,536's	4,096's	256's	16's	ones
	$16^7$	$16^6$	$16^5$	$16^4$	$16^3$	$16^2$	$16^1$	$16^0$
						3	8	f

0,1,2,3,4,5,6,7,8,9,a,b,c,d,e,f

base64					262,144's	4096's	64's	ones
	$64^7$	$64^6$	$64^5$	$64^4$	$64^3$	$64^2$	$64^1$	$64^0$

<b>BINARY</b>	128's	sixty fours	thirty twos	sixteens	eights	fours	twos	ones
	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
	0	0	0	0	0	0	0	0

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<b>BINARY</b>		...	1,048,576's	...	2048's	1024's	512's	256's
		...	$2^{20}$	...	$2^{11}$	$2^{10}$	$2^9$	$2^8$
						1	0	0