A byte is 8 bits, or 2 nibbles (2^3) 1kb => 2^10 or 1'024 bytes 1mb => 2^20 or 1'048'576 bytes 1gb => 2^30 or 1'073'741'824 bytes 1tb => 2^40 or 1'099'511'627'776 bytes

Name	Value	Name	Value	Diff
kilobyte (kB)	10^3	kibibyte (KiB)	2^{10}	2.4%
megabyte (MB)	10^6	mebibyte (MiB)	2^{20}	4.9%
gigabyte (GB)	10^9	gibibyte (GiB)	2^{30}	7.4%
terabyte (TB)	10^{12}	tebibyte (TiB)	2^{40}	10.0%
petabyte (PB)	10^{15}	pebibyte (PiB)	2^{50}	12.6%
exabyte (EB)	10^{18}	exbibyte (EiB)	2^{60}	15.3%
zettabyte (ZB)	10^{21}	zebibyte (ZiB)	2^{70}	18.1%
yottabyte (YB)	10^{24}	yobibyte (YiB)	2^{80}	20.9%

$$100(1 - \frac{10^{3x}}{2^{10x}})$$