

How much is that gigabyte in the window?

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Slashdot is in an uproar over a lawsuit charging computer manufacturers for misleading consumers over hard drive capacity. The manufacturers use the ISO definition, wherein a “gigabyte” is one billion bytes, even though most people consider a gigabyte to be 1024 megabytes. This is a tricky one. The computer industry is itself inconsistent as to whether the “kilo”, “mega”, *etc.* prefixes refer to powers of ten or powers of two. The only place you see powers of two is when describing storage capacity. Everything else is powers of ten: Your 1GHz processor is running at one billion cycles per second, not 1,073,741,824 cycles per second. Your 28.8K modem runs at 28,800 bytes per second, not 29,491. And your 19” monitor measures only 17.4” inches diagonally. There do exist IEC standard designations for power-of-two multipliers. A kibibyte (KiB) is 1024 bytes, a mebibyte (MiB) is 1024 KiB, and a gibibyte (GiB) is 1024 MiB. Good luck finding anybody who actually uses these terms.

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