Hexadecimal

The *hexadecimal number system* is the base 16 number system (as distinct from our familiar base 10 decimal number system.) It traditionally uses the digits

$$0, 1, 2, 3, 4, 5, 6, 7, 8, 9, \mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F},$$

where A through to F represent the (decimal) numbers 10 through to 15. Sometimes the lower case a through to f are used instead.

It is commonly used in computing, as $16 = 2^4$ represents 4 binary digits (also known as *bits*), so a two digit hexadecimal number represents 8 binary digits, which is known as a *byte*. Computer storage is described in bytes; for example, a 1 TB disk stores 1 terabyte, which is about 10^{12} bytes.

Copyright © University of Cambridge. All rights reserved.