

Units of Storage

Keywords

DEPARTMENT OF
Computer Science

Bit

A bit is the smallest unit of data that can be stored by the computer.

Each bit is represented as a binary number, either:

1 or 0

Nibble

This is not a very commonly used term compared to bit or byte. It is the term given to a group of four bits.

1 1 0 1

nibble (4-bits)

Byte

A byte contains 8 bits. A single keyboard character that you type, such as the letter 'A', takes up one byte of storage.

0 1 0 1 1 1 0 1

byte (8-bits)

Kilobyte

A kilobyte is a unit of storage. It can be written as KB or Kbyte.

It is equal in size to 1,024 bytes, which is actually 2 to the power of 10.

Megabyte

A megabyte is a unit of storage. It can be written as MB or MByte.

It is equal in size to 1,048,576 bytes or 1,024 kilobytes. A typical MP3 song can be anywhere between 3 to 6 megabytes in size.

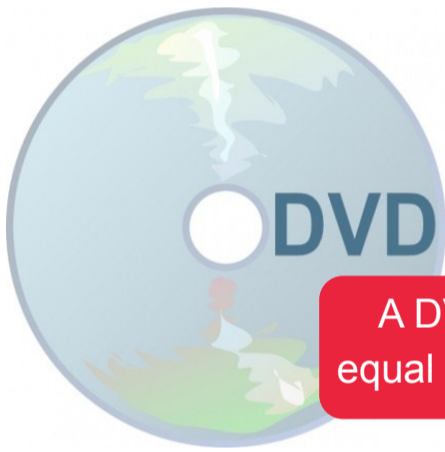
Gigabyte

A gigabyte is equivalent to 1,024 megabytes and can be written as GB or GByte, but not Gb (used for gigabit).

Hard drives are measured in gigabytes with a typical hard disk size being around 160 gigabytes or more.

Terabyte

Commonly referred to as TB, a terabyte is equivalent to 1,024 gigabytes. For example, a terabyte could be used to store over 300 hours of good quality video. However, waiting around the corner is the petabyte, equivalent to 1,024 terabytes!



A DVD disc is typically equal to 4.7 GB of storage.



A USB Memory Stick typically stores between 4 to 64 GB.