

HARDWARE COMPONENTS

CPU

1. CPU stands for _____.
2. If comparing a computer system to a human, the CPU would be the _____.
3. _____ and _____ are the two biggest CPU manufacturers for the PC. They have quite a history of competition including some impressive lawsuits.
4. The most important attribute in a CPU is the clock _____ or clock _____ or clock _____. However, since the mid-2000s, this has become a less important way to compare CPUs of different brands. More on this later.
5. The CPU's frequency is measured in _____. This is the amount of cycles per second. During each cycle, the CPU generally executes a command.
6. The short form for gigahertz is _____ and the short form for megahertz is _____.
7. The term hertz means _____ per second.
8. A CPU's job is to _____ the commands that it receives. The commands are lined up one after another waiting in line to get to the CPU.
9. Newer CPUs contain multiple _____. Each one is able to run its own commands. Therefore, multiple commands can be executed at the same time (in parallel). The introduction of this new technology has made comparing CPU speeds more difficult.

MOTHERBOARD

1. The motherboard is the hardware component where all computer _____ connect.
2. PCB stands for _____. The motherboard is the largest PCB in your computer. Other PCBs connect to it via expansion slots.
3. The CPU, _____ slots (for extra cards) and _____ slots (for memory) are all on the motherboard. (The CPU and memory will be discussed in their own sections.)

RAM

1. RAM stands for _____. The "RA" refers to the fact that any data on the chip can be access in the same amount of time. An example of the opposite of this would be a tape back-up where data at one end can be accessed quickly but data at the other end requires the tape to be forwarded to that end before accessing it.

2. Each piece of RAM is called a _____, or a _____, or a _____.
3. RAM, like the hard drive, is a form of _____. While the hard drive stores all of the computer's data, RAM stores system information that is soon likely to be used by the CPU.
4. The reason that RAM stores a part of the hard drive's information is that RAM is _____ memory. It would delay the CPU too much to constantly make requests to the hard drive for information. Of course, the more RAM a system has, the more likely that required information will be stored in the RAM.
5. So if RAM is faster than a hard drive, why do we even have a hard drive? There are two reasons:
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6. RAM is said to be _____ memory because it is erased if it stops being powered.
7. RAM plugs into a slot that is on the _____. There are usually 2 to 4 slots for different RAM sticks to be plugged into.
8. The most common computer upgrade is to increase the amount of _____ in a computer. This is often done by simply adding another stick into an empty slot.

HARD DRIVES

1. When comparing a computer to a human, the hard drive would be the human's _____.
2. All _____ is stored on the hard drive in the form of _____. This includes your operating system files, your application files, music files, game files, photo files, etc...
3. If your hard drive fails, you lose all your _____. In this sense, it is the one truly irreplaceable part of your computer. You can order another identical hard drive, but it won't contain your files.
4. _____, the abbreviation for hard drive, stands for _____.
5. SSD, a newer type of hard drive that is faster (but more expensive), stands for _____.
6. The primary attribute of a hard drive is its _____.
7. A hard drive's size is measured in _____. The prefix mega means millions. The prefix giga means billions. The prefix tera means trillions. Mr. Campeau's first hard drive, in 1994, was 214 megabytes.

8. Here is a table showing the unit of measure and its abbreviation:

Unit	Abbreviation
Byte	_____
Megabyte	_____
Gigabyte	_____
Terabyte	_____

VIDEO CARDS

1. Another name used for a video card is _____ card. Some people also refer to it as GPU.
2. The video card plugs in a(n) _____ on the motherboard.
3. The video card _____ data from the CPU to a format that is understood by the monitor. It saves the CPU time by allowing it to pass off some of the work.
4. The video card has its own CPU called _____ which stands for _____.