

# Buying a PC

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## Form factors

Desktop	Best for traditional office/desk environments; good bang for the buck; relatively easy to replace parts; many find desktop setup to be most comfortable for extended use
Notebook (laptop)	Full capabilities of a desktop, but with portability; more expensive and often slower than desktops; prone to accidental damage and theft; relatively expensive to repair; accessories may add to cost; can be used like a desktop with purchase of a monitor, keyboard, mouse, and docking station
Mini desktop	Good choice for places where space is limited; often uses notebook parts, giving it some of the cost and repair disadvantages of notebooks; often uses less electricity and generates less noise and heat than standard desktops
Integrated desktop	PC is built into the monitor, eliminating need for a place to put the tower; often uses notebook parts, giving it some of the cost and repair disadvantages of notebooks; often uses less electricity and generates less noise and heat than standard desktops; often stylish, nice for public areas
Netbook	Great second computer for someone who wants small, light, and inexpensive; typically slower and less versatile than a notebook; some may find keyboard cramped and screen frustratingly small; sometimes comes with Linux instead of Windows XP (none come with Windows Vista)

## CPUs (processors)

Speed is measured in gigahertz (GHz). Affects how fast the computer can process information. Important for video editing, ripping music, games, statistical analysis, 3-D design, etc. Little impact on Internet use, word processing, etc. However, low-end processors often correlate with other low-end hardware.

Many CPUs now have two or more “cores,” not to be confused with the Intel brand name “Core” or “Core 2.” The more cores, the more things can happen simultaneously on the computer without it slowing down. Two cores is generally better than one, but more than two is not useful for typical users.

	<b>Intel</b>	<b>AMD</b>
<b>Entry-level</b>	Celeron	Sempron
<b>Intermediate</b>	Pentium	Athlon
<b>Premium</b>	Core	Turion or Phenom

## RAM (memory)

The amount of RAM affects the computer's ability to "think" about lots of things at once. With too little RAM, the computer tends to slow down when the computer has a lot going on.

RAM is measured in gigabytes (GB). A modern PC running Windows Vista should have at least 1 GB, with 2 GB recommended, especially if you tend to have multiple windows open at once while working. A netbook (not *notebook*) PC with Linux or Windows XP can be okay with less, like 512 MB.

## Hard drive (storage)

Holds all your software, music, videos, photos, etc. Generally, more space (measured in GB) is better, though desktop hard drives in particular have gotten so large that it's almost irrelevant what size you choose. Instead, focus on speed.

4200 RPM	Slow hard drives used in some cheaper notebooks and netbooks; will make the computer seem very slow, no matter what other hardware it has
5400 RPM	Common speed for notebook hard drives; much better than 4200 RPM, but still noticeably slower than 7200 RPM; may use a bit less power (and thus battery life) and generate less heat than 7200 RPM
7200 RPM	Common speed for desktop hard drives; also available on some notebooks; fastest standard hard drive speed available
Solid State (SSD)	New technology; very fast without using too much power/battery; relatively expensive and very low capacity compared to traditional hard drives; used on some netbooks and as an expensive upgrade on some notebooks

## Other hardware

Integrated sound and video are fine for typical home use. Upgrade to a separate video and/or sound card for heavy gaming or specialized PC use. The more USB ports, the better. DVD burners have become commonplace. Generally no need to upgrade to a Blu-Ray drive, unless you want to watch Blu-Ray movies.

## Software

Look for Windows Vista Home Premium instead of Vista Home Basic. Microsoft Works provides basic word processing and other applications, but upgrade to Microsoft Office Home & Student (or try the free but not quite as user-friendly OpenOffice.org) for full-featured office software. Be sure to maintain current anti-virus software from a reputable vendor, such as AVG, Avira, ESET, Kaspersky, McAfee, Norton, Trend Micro, etc.

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