Factors in Determining the Speed and Power of a Computer

Processor Speed (4.77 Mhz, 8 Mhz, 25Mhz, 33Mhz, 133Mhz,233Mhz, 350Mhz, 900 Mhz, 1.8 Ghz, 2.6 Ghz, 3.2 Ghz)

Processor Instructions Set: (8088, 286, 386SX, 386DX,486SX, 486DX, Pentium I, Pentium MMX, Pentium II, Pentium III, Pentium 4)

Bus Width or Path: 8 bit, 16 bit, 32 bit, 64 bit
Also: The bus width of the processor, memory, expansion slots, and internal bus can be different and make a difference

Bus Speed: (4.77mhz, 8 mhz, 16 mhz, 33mhz, 50mhz, 66mhz, 75mhz, 100Mhz, 400Mhz, 800Mhz)

Chipset: Instructions and features

Cache Memory: None, 4k, 8k, 16k,32k, 128k, 256k,512k, 1mb, and whether its Level 1, 2, etc
The Celeron originally had no cache memory and was extremely poor in performance. When they put some cache memory in it, it became a popular low cost choice

System Memory Speed: Memory is made with different speeds and it must be matched to the system motherboard for speed and type.

System Memory Amount: Windows 95 wants 16mb, Windows 98 wants 32Mb, Windows Me wants 64MB, Windows XP wants 128 Mb as their minimums and if you double these amounts, you can expect almost twice the speed as an increase. After these amounts are doubled, their will on be 3-5% increase in speed unless something requires more.

Operating System: Can make a difference: a newer OS can slow the computer because there are many more files to load and use

How full the Hard Drive is: As a hard drive fills and goes beyond about 2/3 full, you will see a decrease in performance or speed that is very noticeable.

Fragmented Hard Drive: As a hard drive is used, files from programs and data and drivers get fragmented all over the drive and it takes longer to access them, thereby slowing down your system.

The Number of Programs and Utilities that Automatically Startup
when a computer is turned on: Most computers have programs or parts of them as well as utilities starting when the computers starts up. All of these take away from the computer's resources and power as they are running, using the processors power that has to be shared with other things you want to run.