This is the first paragraph.

IF YOU HAVE NEVER USED A COMPUTER BEFORE:  
  
  
  
Welcome! Computers have been around since the Chinese Abacus.  
  
They are here to stay. There is a certain feel and flow to the  
  
logic which directs their activities.  
  
  
  
Electronically all computers work about the same. The one you  
  
are using is called a MICROcomputer. This is due to its size.  
  
Larger computers include MINIcomputers and Mainframe computers.  
  
  
  
RAM  
  
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Think of a computer as a human brain. Your brain is a memory sponge.  
  
It contains a lifetime of memories which cause us to act or react  
  
based on inputs. Inputs come via our 5 senses. If you see and smell  
  
a steak burning on the grill (inputs) you know how to react based on  
  
previous experiences (memory - go out to eat).  
  
  
  
The computer's brain is comprised of a large memory area called Random  
  
Access Memory (RAM) and a calculating portion called the Central Processing  
  
Unit (CPU). The CPU and RAM work together as the computer's "brain". Each  
  
day when we start up the computer one of the first tasks will be to fill  
  
RAM with instructions to give it an ability to perform work. This work may  
  
be in the creation of documents or tracking accounting data (more information  
  
on CPU is found under the HARDWARE section).  
  
  
  
You control which instructions will go into the computer's brain.  
  
You control which sets of experiences you will provide the  
  
computer. Once in RAM, the computer will evaluate inputs from  
  
many devices and react. The most typical input device is a  
  
keyboard. As you type commands, the computer evaluates them and  
  
based on the set of instructions within its RAM, will follow some  
  
action - perhaps print a document, calculate, or send information  
  
over a telephone line.  
  
  
  
At some later point you may empty the computer's brain and  
  
install a different set of instructions, thus giving it a  
  
different ability.  
  
  
  
Unlike a human, the computer requires electricity to keep the  
  
information within RAM. Each time the computer is turned off,  
  
all information within RAM is lost. RAM is a temporary memory.  
  
To save instructions for use at a later date, a storage device is  
  
required. Computers use many such devices. Your computer uses a  
  
Floppy Disk and/or a Hard Disk. Both are similar.  
  
  
  
DISKS  
  
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Think of these disks as cassettes. You can record information on  
  
a cassette which can be replayed indefinitely and if desired,  
  
recorded over. Floppy and Hard Disks operate in a similar fashion.  
  
We record (Save) something we have created - like a document - onto the  
  
disk. Then, hours, days, or months later we are able to play back  
  
(Retrieve) the document into the computer to alter or print out. Just

retain their information.  
  
  
  
Hard Disks and Floppy Disks are similar. Hard Drives have a larger  
  
capacity for file storage, are faster and are less likely to fail due  
  
to the protected environment from within which they operate.  
  
  
  
RAM is called volatile memory because of the electricity  
  
requirement. Floppy and Hard Disks are called non-volatile  
  
memory because they will retain their information without the aid  
  
of electricity.  
  
  
  
A computer system includes computer hardware, software and  
  
people. A computer is a device capable of solving problems  
  
or manipulating data by accepting data, performing prescribed  
  
operations on the data, and displaying the results.  
  
  
  
HARDWARE versus SOFTWARE  
  
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HARDWARE: Physical equipment such as electronic,  
  
magnetic, and mechanical devices (monitor, keyboard,  
  
printer, microchip boards,...). Includes INPUT/OUTPUT  
  
DEVICES which allow the operator to communicate with the  
  
computer and vice versa.  
  
  
  
SOFTWARE: Sets of programs (stored sets of  
  
instructions) that govern the operation of computer system  
  
and make the hardware run. These programs (instructions)  
  
tell the hardware how to perform a particular task such as  
  
word processing, games, database management, etc.  
  
  
  
Software refers to the instructions that are used to enable  
  
an otherwise dead machine to understand your inputs and  
  
transform them into desired outputs.  
  
  
  
Computer hardware by itself has no personality; this is  
  
determined by the software. Word processing software turns  
  
the computer into a word processor, accounting software turns  
  
the computer into an accounting tool, etc.  
  
  
  
The computer requires two types of Software:  
  
  
  
 DOS - Disk Operating System  
  
 Application Software - Word Processing, Spreadsheet, Games,  
  
 Database Management, Accounting, Payroll, etc.  
  
  
  
DOS (Disk Operating System)  
  
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All computers require an operating system and the one IBM  
  
PC's use is referred to as DOS (sounds like floss). DOS is  
  
software that allows the terminal, printer, computer and mass  
  
storage systems (floppy disks) to work together as a unit,  
  
and controls the execution of programs. It also allows you  
  
to perform housekeeping chores in regards to managing disks

Therefore - DOS: 1. Links Hardware  
  
 2. Enables File Management  
  
  
  
  
  
PROPER HANDLING OF DISKS - DISKS NEED CARE!  
  
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 - Never touch the mylar surface - Do not bend the disks  
  
 - Always store in their protective sleeve  
  
 - Hold the disk by its label or any part of the sleeve  
  
 - Avoid bringing disks near magnets (TVs, telephones,..)  
  
 - Do not leave in hot or cold areas (radiators, car-dash, in  
  
 car during winter, etc.)  
  
 - Use felt tip pens if possible when labeling. Ball points  
  
 can crease the mylar.  
  
  
  
Note the write-protect notch on the disk. If this is covered  
  
by tape or non-existent, data cannot be "written" to the disk.  
  
However, data can still be "read" from the disk.  
  
  
  
It is a good idea to always save data and programs on two  
  
separate disks in case one is destroyed. Even with the most  
  
cautious of care, the delicate Floppy Disks sometimes fail  
  
for no apparent reason.  
  
  
  
  
  
HISTORY:  
  
  
  
The first computational device was the abacus. This has been  
  
in continuous use for thousands of years. During the 1600's the  
  
Pascal adding machine was developed. This was a mechanical  
  
device which laid the groundwork for today's odometers and  
  
gas meters. The 1800's saw many machines developed that were  
  
controlled by punch cards - weaving looms, etc. The  
  
theoretical basis for electronic circuitry was developed in  
  
the mid 1800's.  
  
  
  
The first electronic computer was developed in 1942 at Iowa  
  
State College. From this point forth there were numerous  
  
firsts as computers became less mechanical, smaller, faster  
  
and cheaper. IBM began dominating the computer market by the  
  
mid-1950's and still does today in the mainframe (very large  
  
computer installation) market. Digital Equipment Corp.  
  
(DEC) became a significant competitor by the mid-1960's. DEC  
  
is generally considered technically better (faster, smaller,  
  
etc.) than IBM but still only has a fraction of the total  
  
market due to marketing snafus. Today the Cray Supercomputer  
  
is the fastest in the world, is manufactured in Wisconsin,  
  
and is set in a vat of liquid helium to increase the  
  
conductivity for faster operation.

TIME vs SPEED  
  
  
  
Method of Calculation Approximate Speed  
  
Human (manual calculation) 1 each 60 seconds  
  
Burroughs E101 (1954) 4 per second  
  
IBM 1130 (1964) 600,000 per second  
  
DEC PDP 11 (1974) 1,000,000 per second  
  
Cray supercomputer 13,000,000 per second  
  
  
  
The Personal Computer is defined by its size, cost  
  
applications for small business and the home. The first one  
  
appeared in January 1975 and was the Altair 8800 kit. Only  
  
hobbyist bought these. Then the Radio Shack TRS 80 and Apple  
  
computers hit the market as the first pre-assembled  
  
microcomputers.  
  
  
  
Market growth remained sluggish until two business students -  
  
Dan Bricklin and Dan Fylstra developed a program to run on  
  
Apple computers to handle the tedious recalculations in their  
  
school assignments. This program was called VisiCalc and is  
  
the forerunner to the spreadsheet program Lotus 123.  
  
  
  
With VisiCalc as a useful tool, Apple sales took off. Apple  
  
became the standard because all programs were written for  
  
Apple. Today we still see Apple dominate the school market.  
  
  
  
In 1981 IBM introduced its PC which is unable to run Apple  
  
software. Unlike Apple or other IBM products, the IBM PC had  
  
an open architecture which means the technical details of how  
  
it operated were published right along with the product's  
  
introduction. This permitted hundreds of companies to write  
  
software (programs) for the IBM PC as well as a variety of  
  
accessories. Adding IBM's sterling reputation, the open  
  
architecture did enable rapid market penetration. The  
  
microcomputer was no longer a toy, it was a business tool.  
  
  
  
The open architecture however, also allowed for the  
  
generation of a host of lower cost compatible computers.  
  
IBM had traded quick initial market entry for eventual erosion  
  
of market share. In both instances, we the consumers  
  
benefit.