

Personal computers grew their performing ability exponentially

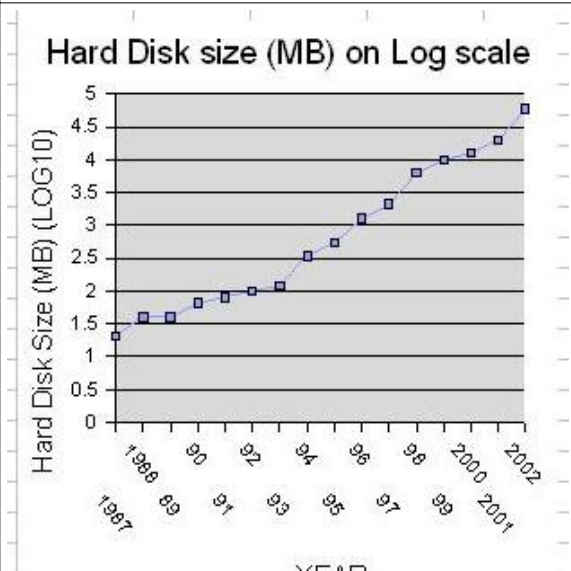
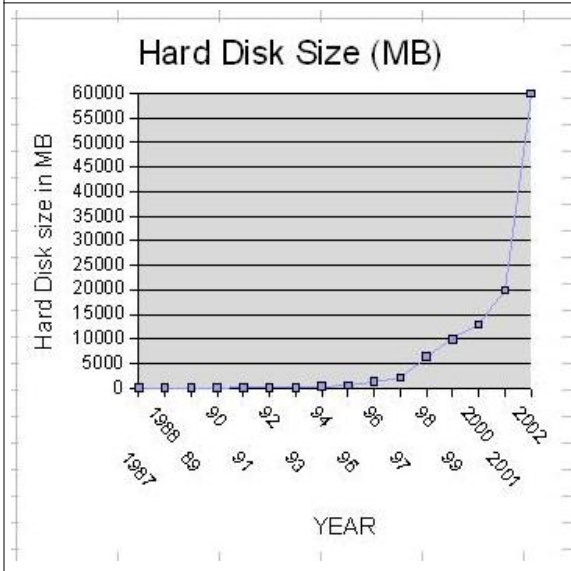
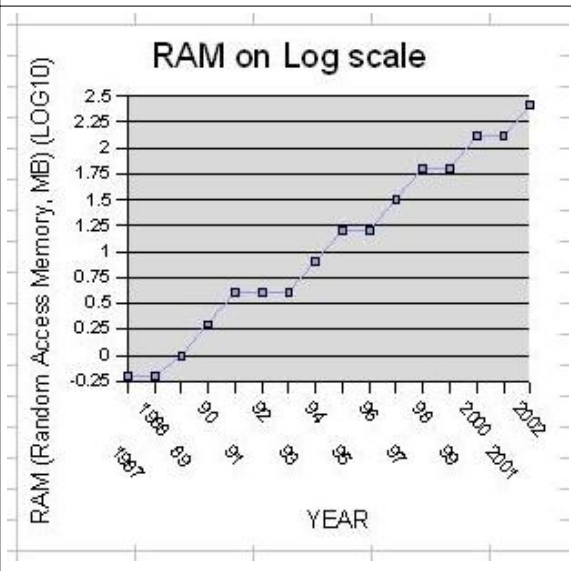
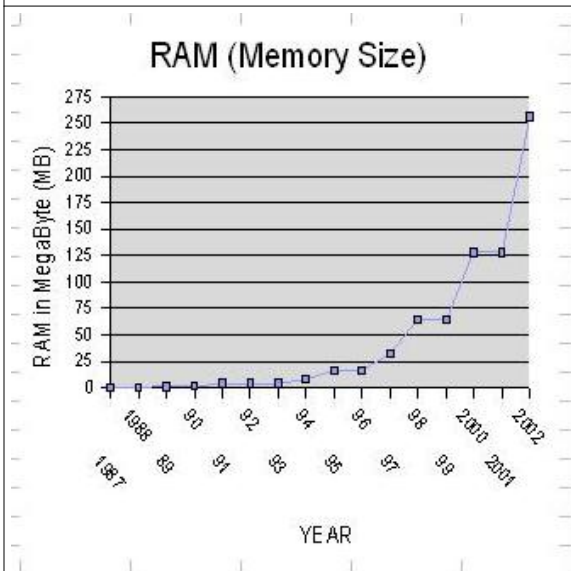
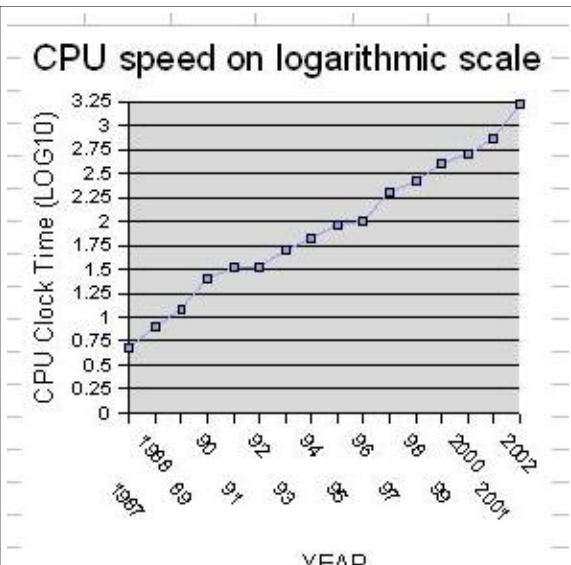
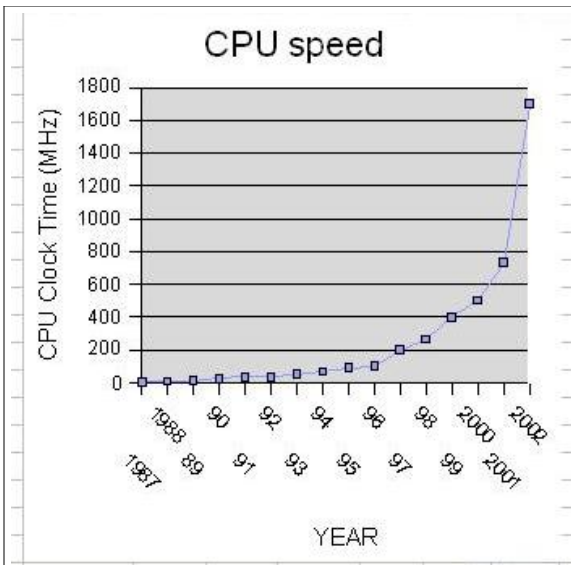
INTRODUCTION:

To provide a supportive evidence for merging trends of supercomputers and microcomputers, how rapidly personal computers reach to the horse power of then-supercomputers are shown here.

MATERIALS AND METHOS: The three kinds of horse power data about popular personal microcomputers (PC) are extracted from a magazine, PC World (ISSN: 0737-8939). Before plotting to graphs, the raw data table is as shown in Figure 1, where central processing unit's (CPU)'s speeds are in kilo hertz (KHz)/ mega hertz (MHz), random access memory (RAM) are in kilo bytes (KB)/ mega bytes (MB), and hard drive capacity is in kilo bytes (KB)/ mega bytes (MB)/ giga bytes (GB). Those three PC's critical performing horse powers were further plotted in graphs in regular scale and in logarithmic (10-base) scale.

Figure 1

Year, Month	CPU and its speed (KHz, MHz, GHz)	RAM (KB, MB)	Hard Drive (KB, MB, GB)
1983, JAN	64 KHz IBM-PC	---	
1984, JAN	64 KHz IBM-PC	128 KB RAM	320 KB HD
1985, JAN	256 KHz IBM-PC	256 KB RAM	320 KB HD
1986, JAN	256 KHz IBM-PC or 640 KHz PC compatible	256 KB RAM	10 MB HD
1987, JAN	4.7 MHz - 7.4 MHz PC or 8 MHz PC compatible	640 KB RAM	20 MB HD
1988, JAN	8 MHz - 80286	640 KB RAM	40 MB HD
1989, JAN	12 MHz - 80286 or 20 MHz - 80386	1 MB RAM	40 MB HD
1990, JAN	33 MHz - 80386 or 25 MHz - 80386	640 KB RAM 2 MB RAM	65 MB HD
1991, MAR	33 MHz - 80486	4 MB RAM	80 MB HD
1992, JAN	25 MHz - 80486 or 33 MHz - 80486	4 MB RAM 8 MB RAM	100 MB HD
1993, JAN	486 - 50 MHz (33 MHz, 66 MHz)	4 MB RAM 8 MB RAM	81 MB HD 120 MB HD
1994, JAN	486 - 66 MHz	8 MB RAM 16 MB RAM	340 MB HD
1995, JAN	(Top20) Pentium - 90 MHz	16 MB RAM	540 MB HD
1996, JAN	(Top 20) Pentium - 100 MHz	16 MB RAM	1278 MB HD 1624 MB HD
1997, JAN	(Top20) Pentium - 200 MHz	32 MB RAM	2.1 GB HD
1998, JAN	(Top20) Pentium II - 266 MHz	64 MB RAM	6.4 GB HD
1999, JAN	(Top20) Pentium II - 400 MHz	64 MB RAM	10 GB HD
2000, JAN	(Top10 Midrange) Pentium III - 500 MHz	128 MB RAM	13 GB HD
2001, JAN	(Top10 Midrange) Pentium III - 733 MHz	128 MB RAM	20 GB HD
2002, JAN	(Top15 HomePC) Pentium 4 - 1700 MHz	256 MB RAM	60 GB HD



DISCUSSION:

During the years from 1983 to 2002, all three factors of PC's performing abilities (CPU speed, RAM size, and Hard drive size) were grown exponentially, not proportionally. This is an unusual rapid growth, when it is compared to the other fields of technological growth. As the result, with interchangeable technology of electro/magnetic waves (Internet, Satellite communication), this growth of modern personal computers upholds the transformations in various aspects of people's daily lives.

Submitted by TuneFind Research Group