KÉSZSÉGFEJLESZTŐ ÉS FELKÉSZÍTŐ ANYAGOK A SZÓBELI VIZSGÁHOZ

MSZ

ANGOL KÖZÉPFOK (B2)

MŰSZAKI

Összeállította és szerkesztette:
Vas Judit

Szent István Egyetem
Zöld Út Nyelvvizsgaközpont
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www.zoldut.szie.hu

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I. READING MATERIALS

1. Studies

CHOOSING A UNIVERSITY

Read the following list and rank the items from 1 (most important) to 10 (least important) according to how important they were to you when you chose your university:

a. convenient location, commutable distance
b. highly qualified teaching staff
c. national and international reputation for research
d. no entrance exam requirements
e. size of university
f. easy admission, no competition
g. graduates of that university have excellent employment record
h. friend or relative goes to the same university
i. sports and cultural facilities offered by the university
j. good accommodation for all new students
k. other: ...

FINANCING STUDIES

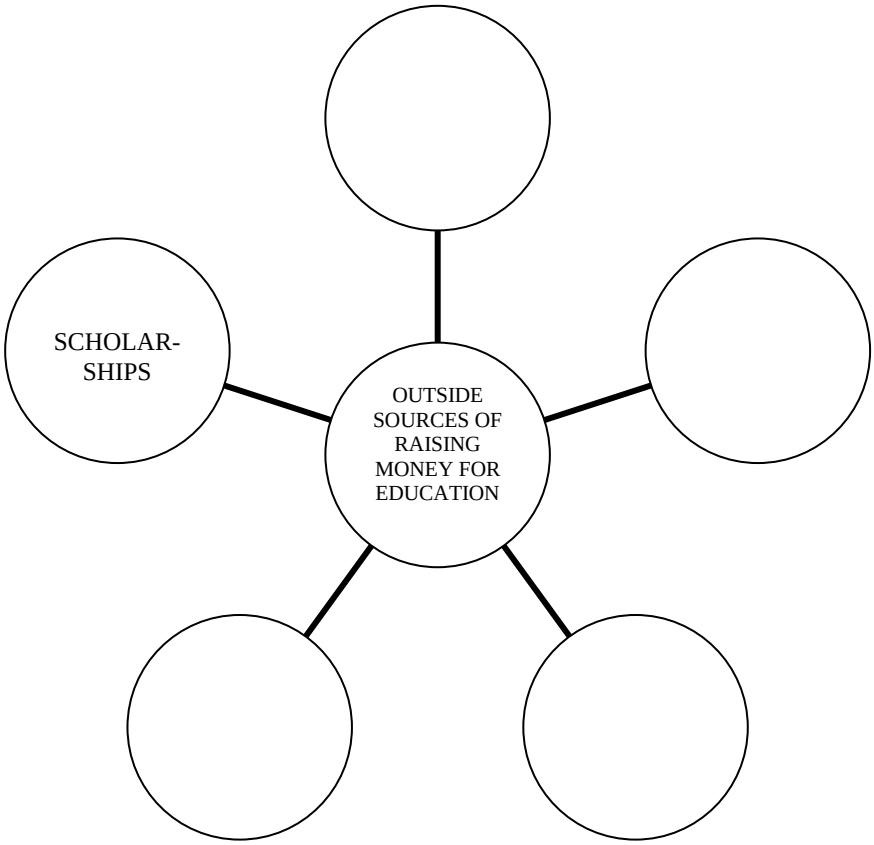
How much does it cost you to attend university or college?

Complete the table below covering a month costs of your studies at the university. Fill in the boxes below with the amount spent on your academic and personal expenses. Add up the total costs.

One Month University Costs

Tuition and Fees	Books and Supplies	Room and Board	Trans-portation	Cinema or Theatre Tickets	Pubs, Restau-rants or Discos	Hobbies Member-ship Cards	Estimate of Total Expense

Fill in the following star chart concerning your finances at the university



The TECHNOLOGICAL EDUCATIONAL INSTITUTE
of HERAKLION, Greece

This institute is located on the beautiful island of Crete, and it was founded in 1983 in order to provide higher technical education to the students of Greece. Since then it has expanded and developed considerably, and now comprises the Schools of

1. Applied Technology
2. Health and Welfare Services
3. Management and Economics
4. Agricultural Technology

Education offers up-to-date training in technological subjects, and prepares students to develop into skilled, responsible and qualified members of the society.

Administrative Structure

GENERAL ASSEMBLY COUNCIL OF TEI

PRESIDENT

VICE PRESIDENT	ONTERNATIONAL OFFICE

SCHOOLS

APPLIED TECHNOLOGY	**MANAGEMENT AND ECONOMICS**	**HEALTH AND WELFARE SERVICES**	**AGRICULTURAL TECHNOLOGY**
MECHANICAL ENGINEERING	ACCOUNTING	NURSING	CROP SCIENCE
ELECTRICAL ENGINEERING	TOURISM INDUSTRY	SOCIAL WORK	FLORICULTURE AND GREENHOUSE CROPS
CIVIL ENGINEERING	CO-OPERATIVES		
ELECTRONICS	FOREIGN LANGUAGES AND PHYSICAL EDUCATION		
GENERAL DEPARTMENT OF SCIENCE			

School of Applied Technology consists of five departments:

- Electrical Engineering
- Mechanical Engineering
- Civil Engineering
- General Science
- Electronics

All these departments award degrees.

Approximately 1600 students attend this school. Each Department provides practical application of the knowledge acquired, aiming at supplying the students not only with a good theoretical education but also practical usage concerning production and services in the wide field of construction and manufacturing.

The students spend a great deal of their time in the laboratories, which are very well equipped and are continuously modernized.

The School makes continuous effort to achieve its goals and keep up with the demands of industry, cooperates with the native and foreign institutions, cultivates connections with the local authorities and organizations, also participates in applied research projects. Due to the European programs (Erasmus/Socrates/Lonardo etc.), the students are able to attend courses, work out their dissertations, or carry out practical training.

Department of Mechanical Engineering

The main purpose of the Department is to provide its students with up-to-date technical knowledge, ready to be applied to industry. The offered specifications are:

- energy systems with emphasis on renewable energy sources,
- design and construction including CAD/CAM/CAE systems.

Subjects

1st semester	**2nd semester**
Mathematics I	Mathematics II
Mechanics I	Mechanics II

Mechanical Drawing I	Mechanical Drawing II
Physics I	Physics II
Foreign Language I	Foreign Language II
Chemical Technology	Computer Programming I
	Quality Control and Technology of Materials
3rd semester	**4th semester**
Applied Mathematics	Fluid Mechanics II
Computer Programming II	Machine Elements II
Fluid Mechanics I	Thermodynamics II
Machine Elements I	Thermodynamics II
Thermodynamics I	Internal Combustion Engines I
Mechanical Lab I	Electro-technics
Econom-technical Analysis	Work Safety and Environmental Protection
5th semester	**6th semester**
Internal Combustion Engines II	Industrial Automation
Electrical Machines	Mechanical Formations and Tribology
Mechanical Installations	Lifting and Transport Machinery
Steel Constructions	Production Organization
Tool Machines	Quality Control
Engineering Design	Renewable Energy Sources
Heating-Cooling, Airconditioning I	Heating-Cooling, Airconditioning II
Hydrodynamic Engines	Steam Turbines and Steam Boilers
Foreign Language III	Foreign Language IV
Organization and Business Administration	
Legislation and Regulations	

Department of Civil Engineering

The department provides the students with the theoretical and practical education for the implementation of the scientific knowledge and methods in the field of civil engineering. Among the subjects taught in the Department, Architectural Design, Structural Analysis, Soil Mechanics, Building Installations, Foundations, Steel and Structures and Building Construction are the most important.

Mechanical Engineering is among the most diversified of the traditional engineering disciplines. Mechanical engineers design and build machines and devices that enable humans to live and work in space, in the air, on the ground, and under water. Their machines can extend our physical capabilities, improve our health and standard of living, and impact the environment in which we live. Mechanical Engineering students acquire an understanding of the fundamentals of mechanics and of the thermal energy sciences. They learn to perform interactive design tasks using computers and to select the most appropriate materials for a specific application. They also become familiar with the chemical and electrical sciences, which are often essential to the total design and realization of a mechanical system. And they also learn to keep the ecosystem in mind when designing solutions to technical problems.

At the graduate level, our activity focuses on a fundamental understanding of mechanical engineering problems. Areas of specialization include aerosol mechanics, biomechanics, fluid mechanics, combustion, laser diagnostics, and solid mechanics/materials.

We have a small but extremely active group of faculty, researchers, graduate students, and undergraduates who share a passion for a range of topics in Mechanical Engineering. We hope that the information presented here will answer your questions about our programs as well as pique your interest in the activities of modern mechanical engineers.

Mitchell D. Smooke

Chair

Department of Mechanical Engineering

Mechanical Engineering is among the most diversified of the traditional engineering disciplines. Mechanical engineers design and build machines and devices that enable humans to accomplish their projects in space, in the air, on the ground, and under water.

Mechanical engineers work with systems in thermal, wind, and hydroelectric power plants; with internal and external combustion engines, aircraft, hovercraft, and satellites; with heating, air-conditioning, and refrigeration; and with hydraulic, magneto-hydro-dynamic and electromechanical equipment, including robots. Mechanical engineers are also increasingly involved in the design of instrumentation for medical applications and biomaterials and also in designing prosthetic devices.

Areas of study in Mechanical Engineering:

- Solid Mechanics/Materials Science
- Fluid Mechanics/Energy Conversion
- Mechanical Design

Mechanical Engineering majors acquire an understanding of the fundamentals of mechanics and of the thermal energy sciences. They learn to perform interactive design tasks using computers and to select the most appropriate materials for building the specific applications. They also become familiar with the chemical and electrical sciences that are often relevant to the design and realization of a mechanical system. Our mechanical engineering students learn to be aware of the ecosystem when designing solutions to technical problems.

Students choose the level of technological intensity at which they will pursue their degree. The level of technological intensity determines the number of credits earned, and the number of credits determines whether a student graduates with a B.S. degree or a B.A. degree.

B.S. in Mechanical Engineering (ABET*-accredited) is the most technically intensive degree program. It is for students who intend to have a career as engineers in industry, consulting firms, or government. This degree is also appropriate for students who plan to be researchers or to pursue an advanced degree in engineering.

B.S. in Engineering Sciences (Mechanical) is suitable for students who wish to gain significant expertise in mechanical engineering and to study related disciplines. For example, a student studying structural mechanics might also take courses in architecture or, when using computer graphics in computer design, a student might take programming courses in computer science.

B.A. in Engineering Sciences (Mechanical) is for students who plan a career in which an understanding of science and technology would provide a major advantage, for example, business, law, medicine, journalism, or public service. This degree is also recommended for students interested in a double major, for example, Engineering Sciences/Economics, Engineering Sciences/Architecture, Engineering Sciences/Art, Engineering Sciences/International Studies, etc

*ABET: Accreditation Board for Engineering and Technology. ABET Goals and Objectives for Mechanical Engineering are as follows:

(1) to provide a comprehensive introduction to basic science and mathematics, which form the foundation of mechanical engineering;

(2) to provide a thorough training in methods of analytical, experimental, and data analysis, including problem formulation;

(3) to provide instruction in the fundamentals of the design process, including project innovation, synthesis, and management, both individually and in a team setting;

(4) to provide both a technical and nontechnical program of study in which oral and written communication skills are developed; and

(5) to instill in students an understanding of their professional and ethical responsibilities which affect society and their profession.

Take a look at our overview of undergraduate studies in Engineering and also at what all six of Yale's Engineering programs have to offer.

I am looking forward to discussing your course of study plan with you and on guiding you in your career plans. Feel free to contact me with your questions.

Marshall Long

Director of Undergraduate Studies (DUS)

Courses

View all Yale classes and lecturers information
All Classes

Official Yale College program and course information is found in Yale College Programs of Study, available on line at www.yale.edu/yalecollege/publications/ycps.

Select a Course Number to View Details Show All

CENG 315b	Transport Phenomena
MENG 101b	Energy and the Environment
MENG 185b	Mechanical Design
MENG 211a	Thermodynamics for Mechanical Engineers
MENG 280a	Mechanical Engineering I: Strength and Deformation of Mechanical Elements
MENG 285a	Introduction to Materials Science
MENG 286Lb	Solid Mechanics and Materials Science Laboratory
MENG 361a	Mechanical Engineering II: Fluid Mechanics
MENG 363Lb	Fluid Mechanics Laboratory
MENG 365b	Propulsion and Energy Conversion
MENG 383a	Mechanical Engineering III: Dynamics
MENG 385b	Materials Science of Microelectromechanical Systems (MEMS)
MENG 386b	Forensic Engineering: Vehicle and Accident Dynamics
MENG 389b	Mechanical Engineering IV: Fluid and Thermal Energy Science
MENG 400aG	Computer-Aided Engineering
MENG 440aG	Applied Numerical Methods I
MENG 441bG	Applied Numerical Methods II
MENG 457bG	Biomechanics
MENG 463aG	Theoretical Fluid Dynamics
MENG 469a	Aerodynamics
MENG 471a	Special Projects
MENG 472b	Special Projects
MENG 485aG	Microstructural Development in Materials
MENG 486bG	Mechanical Behavior of Materials
MENG 489aG	Mechanical Design: Process and Implementation

Research Facilities in Mechanical Engineering

Our research is done in Mason and Becton Laboratories which are well-equipped with instrumentation for analyzing and characterizing surfaces, particles, cells, chemical kinetics, flows, and separations and with personal computers as well as high-performance-workstations.

Mechanical Engineering possesses unique molecular beam equipment, uv photoionization time-of-flight mass spectrometers, and high-speed variable-temperature scanning tunneling microscopes. It also has state-of-the-art chromatography systems and a high-resolution Fourier transform infrared spectrometer.

The high level of research activity across campus sustains other critical facilities: the Becton Engineering and Kline Science Libraries, machine, electronics, and glassblowing shops, transmission and scanning electron microscopes, x-ray diffractometers.

Specialized Laboratories:

The Acoustics Laboratory includes equipment covering the range of frequencies from audio to 100 megahertz: generators, synthesizers, pulsers, amplifiers, transmitters, transducers, microphones and hydrophones, spectrum analyzers, digital oscilloscopes, diagnostic ultrasound equipment for imaging and doppler, sound level meters, reverberation time analyzers, audio and video tape equipment, and microcomputer-based data acquisition systems. There is also special equipment for the measurement of the mechanical behavior of liquids and specially designed apparatus for the acoustic levitation of particles, drops and biological material.

The Aerosol Laboratory facilities include a variety of devices to investigate ultrafine particles in gas suspension in the size range from molecular dimensions to hundreds of nanometers. Available to our students are: four state-of-the-art differential mobility analyzers (DMAs) (resolving power near 70, FWHH =1.5%), that offer a unique opportunity to investigate molecular ions and small polymer molecules in a gas, under well controlled conditions; several compressible focusing impactors and hypersonic impactors, with a size range down to a few nanometers, that, combined

with the DMAs, allow for mass measurements in a range to existing instrumentation. The laboratory is able to generate size standards in the nanometer range, including electrospray sources and hot filament sources. A mass spectrometer is available for studies of electrospray ionization. Larger particles can be investigated with TSI's commercial 7031 DMA model (from 10 nm up to 200 nm), and an aerodynamic size spectrometer.

The Biomechanics Laboratory is equipped for material testing of biological preparations as well as for human motion studies. Flexibility and material testing machines allow for determination of physical properties of biological tissues before and after injury. Infra-red cameras (Optotrak) and magneto-electronic (Flock of Birds) devices are available for three-dimensional rigid body motion analyses.

The Fluid Mechanics Laboratory facilities include wind tunnels, high-speed digital and framing cameras, shadow-graph, schlieren and interferometer systems, infrared spectroscopes, pulsed short-duration light sources, laser light-scattering apparatus, PIV system for velocity measurement in a plane, and state-of-the-art data acquisition systems..

Laser Diagnostics and Combustion Facilities for studying turbulence and combustion include a large number of lasers and state-of-the-art electronic imaging and flow visualization systems. Research equipment includes instrumentation for planar laser-induced fluorescence, Raman spectroscopy, absorption and emission spectroscopy, nonlinear optical spectroscopy, photo ionization spectroscopy, Fourier transform spectroscopy, laser Doppler anemometry, phase Doppler anemometry, elastic and inelastic light scattering, gas chromatography, and mass spectrometry.

The Mechanical Testing Laboratory for research on solids offers a microprocessor-controlled MTS system capable of combined tension-torsion loading and a PC controlled 50,000 lb MTS tension-compression system. Equipment for the measurement of dynamic mechanical properties includes a Kolsky bar and high speed digital acquisition equipment designed for high resolution crack velocity measurements.

Recently, a computer-integrated, mouse-driven, Philips XL30 scanning electron microscope was installed for materials characterization and micromechanical testing of small-scale structures of various materials and for use by undergraduates and graduate students working in materials science and mechanical behavior of materials. It provides a high resolution digital image acquisition system, an EDAX EDS unit for chemical analysis of materials, a TSL OIM unit for microtexture characterization of individual crystals, custom-built loading stages and heating stages, and an infrared CCD monitoring camera. Digital image correlation software and related hardware have also been recently developed to process digital images.

2. Working in technical fields

COMPANY INTRODUCTIONS

A. SONY HUNGARIA Kft.(Gödöllő Plant)

Company profile

Main products: Mini-HiFi, VCR
Markets: Central and Eastern Europe
Area: 124 000 m2
Number of employees: 900 (2000)
Capital: 56 187 000 Euro
Turnover: 828 million Euro

History, important dates

January 1997 completion of plant building, starting mass production
May 1998 one million sets production achieved
October 1998 ISO 9002 Certification

Production philosophy

In accordance with our business policy, the goods are supplied at the required time and quantity while ensuring the best quantity and the lowest possible price. Focusing on these, we will continuously improve ourselves to be better than today.

The combination of Hungarian attitude and Japanese spirit makes the plant unique. The objectives can be reached through interactive communication and effective co-work. The success creates open, fair and innovative atmosphere, which inspires the workers to be target and solution oriented.
The visible organization structure combined with innovative, skilful members defines clear tasks and provides highly efficient plant operation.

The production

Production quantity has been significantly increased since the beginning, and direct shipments are made to 19 countries. The continuous training and education of the company members means high mental power, which further increases the flexible approach to changes. Despite the young age of the factory and its members, well-established production is performed. Their flexibility and positive mind is one of the keys for successful operation.
The 24-hour continuous operation provides semi-finished goods that are produced with high quality and low costs.

Engineering

The Engineering Division functions as a bridge between the theoretical design and the realisation of these designs in mass production. This group is also responsible for the constant improvement of the performance and the quality of the products. Their jobs are supported by the advanced technology – like CAD system – provided by the plant. The specific knowledge of the highly qualified engineers is utilised in the everyday production, always focusing on the possible improvements to satisfy the customers.

Quality

The quality assurance process concentrates on the overall production and keeps to strict methods during every step of the production. Currently several appliances are in practice to satisfy the plant's quality policy and the requirements of ISO system. The ISO 9002 Certification was received in October 1998. One of the methods to achieve clean environment, which is necessary to produce Sony quality, is the everyday practice of 5S. The Positive Process Management (PPM) also contributes to the aim the plant to become the foothold for future expansion towards East.

Environment

The awareness for the conservation of the environment and for the resources used in the production plays an important role in the decision making. The management continuously considers the real and potential impacts of all activities. The reduction of waste, recycling and reuse are made wherever possible. The use of raw materials and energy is reduced to a practicable minimum.

The products manufactured by Gödöllő Plant are interacting with the environment through energy consumption, packaging, transporting etc. The Plant carefully selects its suppliers and contractors, and encourages them to improve their environmental policy. All employees at the Plant receive training in order to create the appropriate awareness for the environment and to motivate the employees to contribute to the conservation of the natural resources.

B. BOSCH WORLDWIDE

The Bosch Group is a leading global supplier of technology and services. In the areas of automotive and industrial technology, consumer goods and building technology, some 272,000 associates generated sales of 46.1 billion Euro in fiscal year of 2007. The Bosch Group comprises *Robert Bosch GmbH* and its roughly 300 subsidiaries and regional companies in over 50 countries. This world-wide development, manufacturing and sales network is the foundation for further growth. Bosch spends more than three billion Euro each year for research and development. The company was set up in Stuttgart in 1886 by Robert Bosch (1861-1942) as “Workshop for Precision Mechanics and Electrical Engineering”.

The special ownership structure of R. Bosch GmbH guarantees the entrepreneurial freedom of the Group, making it possible for the company to plan over the long term, and to undertake significant up-front investments in the safeguarding of its future.

The three business sectors

The name Bosch is closely associated with the automotive industry. But Bosch is not just famous for automotive technology products like gasoline, diesel and chassis systems and car electronics. They also provide many other products and services

including industrial technology, power tools, security solutions and household appliances.

Automotive technology is one of the biggest corporate *division*s in the Bosch group. In 2005, sale increased by approximately € 26 billion (gasoline, diesel and chassis systems, electrical drives, starter motors and generators, car multimedia, automotive electronics, steering systems).

In 2005, the *industrial technology division* generated annual sales worth app. $ 10 billion (automation technology, packaging technology). In the same year, the *consumer goods and building technology division* achieved sales worth € 6 billion (thermo-technology, household appliances, power toots, security systems).

Expanding with green technology. What is Bosch doing to preserve the world for future generations?

With solar technology, wind power and biofuels Bosch sees the future in ecological globalisation.

Climate protection and resource conservation are becoming increasingly international issues. This is increasing the demand for innovative products that help protect the environment. Bosch develops and produces resource-efficient and eco-friendly technologies in the fields of wind energy, biofuels and solar energy.

Drives and transmissions for wind power and marine energy plants.

The Bosch subsidiary Rexroth supports manufacturers of wind turbines. It also develops robust and efficient drive concepts for the new sector of marine energy generation. The first prototypes with hydraulic components and transmission technology are already being tested in plants off the coast of Norway and Great Britain.

Solar collectors for heat generation.

Solar heat generation is one of the biggest contributors towards covering worldwide energy consumption, and Bosch is pressing ahead with the development of solar technology. The aim is to make the production of solar cells much more cost-effective. Bosch is conducting research in the field of organic photo-voltaics. The

organic solar cells can be as flexible and thin as an envelope; they can be used on rooftops, on car roofs and as cell phone chargers.

Using biofuels with the Flex Fuel system

The Flex Fuel injection technology developed by Bosch makes it possible to use any mix of gasoline and biofuel ethanol. Today, about 80% of the vehicles produced in Brazil are fitted with flex fuel injection system. The French car manufacturer PSA is also installing the Bosch system in vehicles for the French and Swedish markets.

Wind power, solar energy and the Flex Fuel drive are just three examples of how Bosch is providing technical solutions to ecological challenges.

Adapted from www. Bosch.com

3. Equipment and technology

DESKTOP OR LAPTOP?

Which is right for you?

Desktop computers

Pros They start at a lower price. Dollar for dollar, they generally offer more than laptops in terms of hard-drive capacity, memory, and sound quality. They also have more options for expansion and are easier (and less costly) to repair. Modular designs allow them to keep running in the event that a non-critical component, such as a CD drive or external port, fails.
Cons They eat up desk space, even with a thin LCD monitor.
Price $400 to $3,000 plus.

Laptop computers

Pros Laptops can do just about anything that desktops can do. They can be carried anywhere and easily tucked away when not needed. According to our surveys of reliability, laptops appear to be less repair-prone than desktops.
Cons Laptops cost hundreds more than comparably equipped desktop models. Internal components and add-on drives are proprietary and costly to repair. Portability

means they're easy to steal and at greater risk of damage.
Price $700 to $3,000 plus.

Reasons why you should choose a laptop

Working on the road
If you have a job that requires traveling and access to a full scale computer at any given time during the day, a laptop would be a good solution. For example, your job requires you to visit several company locations each week and you must have access to spreadsheets, email and the company WAN (wide area network) at each location. You also need the ability to create documents and presentations on the road. A good powerful laptop would be the choice for such a situation.

Busy college schedules
Another good reason for buying a laptop is for people in college who have a full schedule of courses and must have the power and abilities of a full scale computer without having to keep running home to upload or type their notes into a desktop. It is wise to backup your data religiously regardless of whether you use a laptop or desktop computer.

Personal choice
If you are willing to pay the price, a laptop can really open your way to doing things in a different way. Just being able to enjoy a nice sunny day by the pool and writing an opinion at the same time can give you a real feeling of freedom.

Reasons why you shouldn't buy a laptop
They can be upgraded to an extent but usually only by adding memory or external peripherals. The hard drives can be upgraded but are much more expensive and in most cases not as easy to upgrade as a desktop. When you buy a laptop, what you see is basically what you get. The sound, video and usually the modem are all built-in and part of the motherboard. You can't upgrade or replace any of these except the modem.

WIRELESS TECHNOLOGY

Benefits

Increased efficiency

Improved data communication leads to faster transfer of information within the business and between the partners and the customers. For example, sales people can remotely check stock levels and prices when they are on sales visits.

Better coverage

Wireless technology enables the user to communicate while on the move; you do not need extra cables or adapters to access office networks.

Flexibility

Office-based workers can continue to do their productive work while away from the office. This can lead to new styles of home working, such as home working or direct access to corporate data while the sales people are customer sites.

Cost savings

Wireless networks can be easier and cheaper to install.

New opportunities

It could allow you to offer new products or services. For example, many airport departure lounges, hotels, cafes and restaurants have installed “hot spot” wireless networking services.

Some drawbacks

Security

Wireless transmission is more vulnerable to attack by unauthorized users, so particular attention has to be paid to security.

Installation problems

You may suffer interference if others in the same building also use wireless technology, or where other sources of radio signals are present. This could lead to poor communication.

Coverage

In some buildings getting consistent coverage can be difficult, leading to “black spots” where no signal is available. For example, in structures built by using steel reinforcing materials, you may find it difficult to pick up the radio frequencies used.

Transmission speeds

Wireless transmission can be slower and less efficient than the transmission in “wired” networks.

Why build a wireless home network?

You should consider building it for the following reasons:

1. Computer mobility. Notebook computers and other portable devices are much affordable than they were few years ago. With a mobile computer and wireless network you are not chained to a network cord and can work wherever in the house.

2. No visible wires. Most of us cannot afford to lay cables under the floors or inside the walls in our homes.

3. **Wireless technology is clearly** the future of networking.

SAMSUNG CAMERA

User Manual Digital Camera ‘Digimax 360’

The camera comes with 16MB of internal flash memory, allowing you to store images and movie clips in the camera. However, you can expand the memory capacity by using an optional memory card so that you can store more images and movie clips.

MAINTENANCE OF THE MEMORY CARD

- Turn off the camera power whenever the memory card is being inserted or removed.
- Repeated use of the memory card will eventually reduce the memory card’s performance. Should this be the case, you will need to purchase a new memory card.

- Wear and tear on the memory card is not covered by the Samsung warranty.
- The memory card is an electronic precision device.
  Do not bend, drop or subject the memory card to any heavy impact.
- Do not store the memory card in an environment with strong electronic or magnetic fields, e.g. near loud speakers or TV receivers.
- Please do not use or store in an environment where there are extremes in temperature.
- Do not allow the memory card to become dirty or to come into contact with any liquid.
- Please keep the memory card in its case when not in use.
- Do not use a memory card that is used in another digital camera or memory card reader.

- It is advisable to copy important data onto other media as back-up e.g. floppy disks, hard disks, CD etc.
- If there is insufficient memory available: If you press the shutter button for the shot, a (CARD FULL!) message will appear and the camera will not operate. To optimise the amount of memory in the camera, replace the memory card or delete unnecessary images stored on the memory.

NOTICE

- If you open the memory card cover when the camera power is turned on, the power will turn off automatically.
- Don’t remove the memory card when the Autofocus indicator lamp (Green) is blinking as this may cause damage to data in the memory card.

STARTING RECORDING MODE

- If the memory card is inserted in the camera, all the camera functions apply only to the memory card.
- If the memory card is not inserted in the camera, all the camera functions apply only to the internal memory.

RECORDING A MOVIE CLIP

1. Insert the batteries. Insert the batteries taking note of the polarity (+/-).

2. Insert the memory card. As this camera has a 16MB internal memory, you do not need to insert the memory card. If the memory card is not inserted, an image will be stored in the internal memory. To expand memory capacity, insert a memory card. If the memory card is inserted, an image will be stored on the memory card.
3. Close the memory card cover.
4. Slide the power switch to turn on the camera.

If the date/time that is displayed on the LCD monitor is incorrect reset the date/time before taking a picture.

5. Select the MOVIE CLIP mode by rotating the mode dial.
6. Point the camera towards the subject and compose the shot by using the viewfinder or LCD monitor.
7. Press the shutter button and movie clips are recorded for as long as the available recording time of the memory permits.
    - Movie clips will still be recorded if the shutter button is released.
    - If you wish to stop recording, press the shutter button again.
    - Image size: 320x240, File type: AVI

MENU BUTTON

- When you press the MENU button, a menu related to each camera mode will be displayed on the LCD monitor. Pressing it again will return the LCD to the initial display.
- A menu option can be displayed when the following are selected: STILL IMAGE mode, MOVIE CLIP mode, PLAY mode and SETUP mode. There is no menu available when the PC mode is selected.

INFORMATION

- The menu will not be displayed on the LCD monitor in the following circumstances:

- When another button is being operated.
- While image data is being processed. (when the green lamp next to the viewfinder blinks)
- When there is no battery capacity.

- When the menu is showing on the LCD monitor, it is not possible to operate the shutter button i.e. capture an image. To capture an image, simply cancel the menu display by pressing the MENU button.

WIDE/TELE BUTTON

- Used for digital or optical zooming in/out.
- This camera has a 3X optical zoom and a 4X digital zoom function. Using both will offer a total zoom ratio of 12X.
- When you press the zoom (W/T) button, the zoom bar will display in the upper left of the LCD monitor.

TELE ZOOM

- TELE Optical zoom

  Pressing the T zoom button

  This will zoom into the subject i.e. the subject will appear nearer.
- TELE Digital zoom

  When the maximum (3X) optical zoom is selected, pressing the T zoom button activates the digital zoom software and increases the digital zoom ratio by 0.2 steps.

  Realising the zoom button T stops the digital zooming at the required setting.

  Once the maximum digital zoom (4X) is achieved, pressing the T zoom button will have no effect.

  You can check the digital zoom rate with the [X1.2~X4.0] numerical mark next to the zoom bar.

INFORMATION

- To use the digital zoom the LCD monitor has to be turned on.
- Images taken using the digital zoom may take a little longer for the camera to process. Allow time for this to take place.
- While the digital zoom is activated, you can’t select the AEB menu.
- To use the continuous, AEB shot, cancel the digital zoom mode.
- You may notice a decrease in image quality when using the digital zoom.
- If a movie clip is being recorded, the zoom operation cannot be activated.

WIDE ZOOM

- WIDE Optical zoom

  Pressing the W zoom button. This will zoom out from the subject i.e. the subject will appear further away. Pressing the W button continuously will set the camera to its minimum zoom setting i.e. the subject appears at its furthest from the camera.

- WIDE Digital zoom

  When the digital zoom is in operation, pressing the W zoom button will reduce the digital zooming in steps. Releasing the W zoom button stops digital zooming. Pressing the W button will reduce the digital zoom and it will then proceed to reduce the optical zoom until the minimum setting is reached.

  CAUTION

- Take care not to touch the lens to avoid taking an unclear image and possibly causing camera malfunction. If the image is dim, turn the camera power off and on again to modify the lens position.
- Take care not to press the lens as this may cause a camera malfunction.
- Take care not to touch the lens during the zoom operation as this may cause damage.

SIZE

- You can select the image size you require.

1. Rotate the mode dial to the STILL IMAGE mode and press the MENU button.
2. Select the [SIZE] menu by pressing the UP/DOWN button.
3. Press the RIGHT button and the cursor will shift to the [SIZE] sub menu.
4. Select the desired sub menu by pressing the UP/DOWN button.
5. Press the OK button to confirm the setting.
6. Press the menu button and the menu display will disappear.

   Take a picture.

QUALITY

- In STILL IMAGE mode, you can select the image quality (Data compression rate).

1. Rotate the mode dial to the STILL IMAGE mode and press the MENU button.
2. Select the [QUALITY] menu by pressing the UP/DOWN button.
3. Press the RIGHT button and the cursor will shift to the [QUALITY] sub menu.

4. Select the desired sub menu by pressing the UP/DOWN button.
5. Press the OK button to confirm the setting.
6. Press the menu button and the menu display will disappear.
   Take a picture.

CATALOGUE OF COLOUR TV SETS
(CTV)

1. **Panasonic TC 1665 CTV**

Features: infra-red remote control – suitable for computer and video – automatic tuning – automatic channel-search system – 99 channels – 30 pre-selection programs – s-band tuner – 42 cm screen – black, silver and mahogany.
Measurements: (h x w x d) 38.5 x 41.5 x 42 cm. Price: ƒ 999.-
Code table: 1 2 3 6 20

2. **Samsung CB 528 25**

Features: compact – fashionable colours: red, white, blue, black, silver, mahogany, champagne – suitable for video – digital channel-selection reading – LED indicator-infra-red remote control – 16 pre-set programs – 51 cm screen – 1 year guarantee.
Measurements: (h x w x d) 49.5 x 51 x 47 cm. Price: ƒ 1098.-
Code table: 1 2 3 17 20

3. **Sharp C-1410 CTV**

Features: 36 cm Linytron Plus screen – electronic channel tuning – suitable for cable – 16 pre-selection programs – LED display.
Measurements: (h x w x d) 32.5 x 36.5 x 36 cm. Price: ƒ 699.-
Code table: 2 3 6 20

4. **Philips 24 CE 4570/Stereo CTV**

Features: square screen – 99 channels – 63 cm screen – 90 preselection channels – infra-red remote control – 2 x 15 W output speaker system – stereo decoder – CCT teletext – 3-page memory capacity – colours: silver-grey, black.
Code table: 1 2 3 4 5 6 7 8 17 19 20

5. **Sony CTV 2264 EC TXT**

Features:55 cm Trinitron screen – 30 pre-selection channels – infra-red remote control for TV, teletext and video functions – standby – indicator for stereo programmes – 2 x 10 W music capacity. Price: ƒ 1999.-

Code table: 1 2 3 4 5 7 8 17 18 19 20

CODE TABLE

1 infra-red remote control

2 s-band tuner (for cable TV)

3 automatic channel searching

4 stereo

5 teletext

6 automatic tuning

7 scart plug (multi-pin plug)

8 separate video channel

9 frontloading system

10 picture freeze

11 picture for picture

12 picture search

13 auto stop

14 automatic rewind till 0000

15 band indication

16 separate audio/video sockets

17 connection for headphones

18 connection for speakers

19 connection for tape/cassette

20 dutch operation manual

Additional information

ƒ=Dutch florin (guilder)

One inch=2.54 cm

Communication activity:

You are an assistant in an electrical shop (Electro-Cute BV, Breede Noord 45, 1766JV Hoorn Nederland). On the phone is an English speaking person who wishes to have information about your colour television sets (CTV).
Answer his/her questions as completely as possible.

TWO TYPES OF ENGINES

Two Types of engines are commonly used for cars, the four-stroke petrol engine and the four-stroke diesel engine. Although the two – stroke engine is basically more powerful, engineers have not yet been able to make it work better and cleaner than the four-stroke ones. However, recent developments in Australia have opened up new possibilities.

The combustion engine was invented by the Frenchman, Jean Etienne Lenoir in 1858. His engine used gas instead of the present petrol, but the principle is still the same. Lenoir's invention was based on the idea that burning or exploding fuel can push a piston down. One or more of these pistons going up and down can turn a shaft just as your legs, going up and down can turn the crankshaft of your bike. This principle of changing an up-and-down motion into a rotating motion had already been proven useful in steam engines.

It was not until 1883 that Gottlieb Daimler succeeded in running a four – stroke gasoline engine for transport applications. He put a small engine in a 'horseless carriage' and the motor car was born. The petrol engine appeared to be much more practical than the heavy steam engines used in those days.

The principles of the four-stroke engine

The pistons move up and down in the cylinders, usually four. These cylinders are bored into an engine block and they are lined with especially hardened steel. Each cylinder has one or more inlet valves and one or more exhaust valves. The space in the cylinder above the piston is called combustion chamber.

The four cycles of the four-stroke petrol engine

1 The intake or induction stroke

Situation: the intake valve is open, and the piston is on its way down.

Process: the down-going piston causes a partial vacuum, so that either a mixture of air and fuel is sucked into the combustion chamber or the fuel is injected into it.

2 The compression stroke

Situation: the valves are closed, and the piston is on its way up.

Process: the up-going piston compresses the mixture of air and fuel inside the combustion chamber. A typical compression ratio is about 9: 1.

3 The combustion stroke

Situation: the valves remain closed, and the piston has reached its highest point.

Process: a spark from the spark plug ignites the mixture. The exploding mixture pushes the piston down with great force.

4 The exhaust stroke

Situation: the exhaust valve is open, and the piston is on its way up.

Process: the up-going piston pushes the burnt gases up and out of the combustion chamber through the opened exhaust valve.

The basic principles of the two-stroke engine

The first successful application of a two-stroke combustion cycle was devised by Sir Dugald Clerk in 1880. Clerk's concept combined two cycles to provide a power stroke for each revolution of the crank, whereas the four-stroke engines provide a power stroke every two revolutions. With twice as many firing pulses per revolution, a three-cylinder two-stroke can be compared with a six-cylinder four-stroke. In a conventional two-stroke engine, every upward stroke exhausts the cylinder before compressing the mixture, while each downward stroke generates power and sucks in fresh mixture of fuel, oil and air from the sump.

A two-stroke engine has ports instead of valves to get the mixture into and out of the combustion chamber. This not only saves space, as there is no valve-train (valves, valve stems, rocker arms), it also makes a lubrication system superfluous.

As a result, the two-stroke engine is lighter and less expensive than the four-stroke. Recent developments offer features such as automatic oil supply, multi-port loop, electronically controlled fuel injection, and simple but effective catalytic systems.

1 The first stroke (phase 1)

Situation: the piston has moved to its lowest position in the cylinder: the bottom dead centre (BDC).

Process: the downward motion of the piston uncovers the exhaust port and then the transfer port, allowing the loop scavenging of fresh compressed air to drive out all the spent gases and fill the combustion chamber for the next phase. The replacement of spent gases by a fresh mixture is called scavenging.

2 The second stroke (phase 2)

Situation: the piston has reached its highest position: the top dead centre (TDC).

Process: the upward motion closes both ports and compresses the mixture above the piston. This motion also causes an underpressure in the crankcase. Just before the piston reaches its TDC, it uncovers the inlet port, also called induction port. Because of the underpressure, the mixture of air, fuel, and oil is sucked into the crankcase.
Note: In many types, an electronically controlled forced-air fuel mixture is injected directly into the combustion chamber.

1. Fill in the table

Part	**Two-stroke engine**	**Four-stroke engine**
spark plug	+	+
fuel tank		
fuel pump		
inlet valve		
exhaust valve		
camshaft		
piston		
piston rings		
oil pump		

2. Fill in the missing information.

(1- 5 are about the 4-stroke engine, and 6-10 compare the two types.)

1.On the induction stroke the intake valve is open, otherwise……..2. When the piston goes up during the compression stroke, the combustion chamber …… and as a result the pressure…….3. All the valves are closed and the piston moves up. This must be the …….. stroke. 4. A 4-cylinder 16 V engine has ……intake and exhaust valves per cylinder. 5. In engines with fuel injection, only air comes in through the intake valve(s) while in other types ……6.In contrast to the 4-stroke engine, which produces a power stroke every two revolutions of the crankshaft, the 2-stroke engine ……7. Unlike the ……..-stroke engine which has an oil reservoir, called sump, under the crankshaft, the……..-stroke engine ……... 8. Both ……. and ……. Engines have pistons to compress the mixture. 9. In general, the emissions of ……-engines are more harmful for the environment than ……10. Two-stroke engines have ports for inlet and scavenging, 4-stroke engines, however, need…….

3. Role play

Student A describes the 4-stroke engine, student B responds by telling the differences between the two types.

Explain: - the most important parts,

- their functions,
- and how they work together in the overall process

Example: A: The 4-stroke engine has one power stroke in every 4 movements of the piston. B: that is different with the 2-stroke engine. It produces one power stroke in every 2 moments.

Two types of engines: Key to task 1 and 2:

1. Two-stroke engine Four-stroke engine

spark plug++
fuel tank++
fuel pump-+
inlet valve-+
exhaust valve-+
camshaft-+
piston++
piston rings++
oil pump-+

2...., 1.it is closed... 2. is compressed, ... increases... 3. the compression... 4. 2-2intake... 5. fuel, too... 6. produces power stroke every revolution of the crankshaft. 7. Unlike the 4-stroke engine..., the 2-stroke engine doesn't have. 8. Both 4-stroke and 2-stroke ..... 9. emissions of 2-stroke engines ...than 4-stroke engines. 10.... valves

THE CHAIN SAW

Seven golden rules

1. Read the complete owner's manual before operating a chain saw.

2. With basic understanding of kick-back, you can reduce or eliminate the element of surprise. Surprise contributes to accidents.

3. Make sure you have a good grip with both hands, the right hand on the rear handle, the left hand on the front handle with thumbs and fingers encircling the handles. Keep handles dry, clean, and free of oil or fuel.

4. Keep by-standers and animals out the work area. Make sure that the area is free from obstacles.

5. Cut at high engine speed and do not overreach or cut above shoulder height.

6. Follow the manufacturer’s sharpening and maintenance instructions for that particular chain saw.
7. Consult an official dealer in case of doubt about use, maintenance or repair.

Kick-back safety precautions. Warning!

Kick-back may occur when the nose or tip touches an object, or when the saw gets stuck in the wood.

- In some cases, tip contact may cause a lightning-fast reverse REACTION, kicking the guide bar up and back towards the operator.
- Pinching the chain along the top of the guide bar may push the bar rapidly back towards the operator.
- Either of these reactions may cause the operator to lose control, which could result in serious personal injury.

Do not rely on the safety devices built into the saw. As a chain saw user, you should take several steps to prevent accidents or injury.

Other safety precautions

8. Do not operate a chain saw when you are tired.
9. Use safety clothing: safety footwear, protective gloves, and eye, hearing and head protection.
10. Move the chain saw at least 10feet (3m) from the fuelling point before starting the engine.
11. Shut off the engine before setting the chain saw down or before moving to another spot.
12. Do not operate the chain saw in a tree unless you have been specifically trained to do so.

Fuel and lubrication oil. Warning!

The chain saw is equipped with a two-stroke engine. Always run the saw with fuel, which is mixed with oil. Provide for good ventilation when handling fuel.

Clothing

Proper clothing and equipment protect the operator from many potential hazards

Always wear:

a) safety helmet b) ear protection c) visor and/or goggles d) heavy – duty non – slip gloves e) safety pants or chaps f) boots with reinforced toe caps and non – slip soles.

Fuel

Always use a minimum octane number of 90.

Two – stroke oil

- For the best performance, use Husqvarna two-stroke oil especially developed for chain saws. Mixing ratio 1: 50 (2%).
- If this is not available, you may use another two-stroke oil of good quality. Mixing ratio 1: 33 (3%).
- If no two-stroke oil is available, motor oil SAE 30 can be used. Mixing ratio 1:25 (4%).
- Never use multi-grade oil (10W – 30).

Chain oil

- The chain lubrication system is automatic. Always use special chain oil with good adhesive characteristics
- If chain oil is not available, gearbox oil EP 90 can be used.
- In temperatures below 0^{o} C (32^{o} F), some oils become less viscous. This can overload the oil pump and result in damage to the oil pump components.

Maintenance. Warning!

Dirt and wear will affect the function of the brake. Carefully follow all maintenance instructions. If anything is incorrect, contact your dealer.

Chain brake

The saw is equipped with a chain brake to stop the chain immediately in the event of a kick-back. The brake activates when the guard is pushed forward.

If the brake is activated, it is disengaged by pulling the front hand guard back towards the front handle.

General working instructions

Never work alone! Make sure someone is ALWAYS within sight and hearing distance in case of problems! Make sure a First Aid Kit is present, especially if you work outside, away from buildings. Avoid cutting in bad weather conditions such as dense fog, high winds or heavy rain.

When cutting with the bottom part of the saw, the saw will be pulled away from you towards the wood you are cutting. (1) Also, the sawdust will be directed towards you. In spite of that, it is the safest way as it ensures the best control.

Sawing with the upper part makes the job much more tiring while the saw is more difficult to control, which increases the risk of kick-back and pinching. (2)

Technical specifications

Engine	
Displacement	2.2 cu. in/36 cc
Idling speed	3000 rpm
Max. speed unloaded	13, 000 rmp
Fuel and lubrication	
Type of carburettor	Walbro WT 202
Fuel tank volume	0.73 pint/0.40 litre
Oil tank volume	0.36 pint/0.20 litre
Weight	
With guide bar and chain (15”)	12 lbs/5.4 kilos
Chain and guide bar	
Standard bar length	15 in/38 cm
Recommended max. bar length	18 in/46 cm
Chain speed at max. power	16.3 m/sec

Warning!!

These operating instructions and safety precautions are real and authentic, but incomplete! The original manual contains 20 pages of information and illustrations. Before operating a chain saw refer to the original owner’s manual of the saw you are going to use.

Discuss what should the owner’s manual contain. This list may help you:
adjusting the chain, daily inspection, first aid kit, lubrication, replacing the chain, (re)fuelling, starting the engine, sharpening the chain saw, storing the saw, technical specifications, operational instructions, personal protection, safety for other people and for the environment.

II. VERBAL COMMUNICATION AT WORK

Types of dialogues for practice

GREETINGS (üdvözlés)

- Hello, Mr. Crown. It's so nice to see you again. How have you been?
- Mrs. Burke, what a pleasant surprise! How are you? It's been quite a while we saw each other.

- Good morning, Mr. Stanley. How are you today?
- I'm very well, thank you. And you?
- I'm fine, thank you.

- Good afternoon, Miss Crane. It's good to see you.
- Thank you. It's nice seeing you, too. How are things going?
- Just fine, thanks.

EXPRESSING APPRECIATION

(köszönetnyilvánítás)

- We'd like to express our thanks for your hospitality during our stay, Mr. Walters.
- It was my pleasure. I wish I could have done more.

- It's very kind of you to see me. I really appreciate it.
- That's quite all right, Mrs. Coleman.

- Karen, I'm very grateful for all your help with the report. I can't thank you enough.
- It was nothing, Mr. Crown. Don't mention it. I was happy to be of help.

WORRY, CONCERN, AND REASSURANCE
(aggodalom, megnyugtatás)

- I'm very concerned about the problems at the plant. I'm afraid Smith just isn't up to the job anymore.
- I think your concern is justified. But things may not be as bad as they semm.

- I'm really upset! I can't find the papers I need to do my weekly report. I've looked everywhere!
- Calm down, Alice. You know they mustbe here somewhere.

REQUESTS (kérés)

- Would you mind opening the window a little, please?
- Not at all… Is that better?
- Yes, thank you.

- If you have a minute, Mary, I'd like to go over these figures.
- I'm afraid I can't. I have an appointment in ten minutes.
- It'll only take a second.
- All right, I suppose so, if we can make it quick.

AGREEING AND DISAGREEING
(egyetértés, más vélemény)

„I feel that relocating to another area would be impractical."

- I completely agree with you.
- Perhaps you're right.
- I'm afraid I can't agree with you.

„I think we should build a new plant rather than buy an existing one."

- I couldn't agree with you more.
- I tend to agree with you. But I want to have all the facts first.
- I have some reservations about that. It would be a lot more expensive.

INTRODUCTIONS
(bemutatás, bemutatkozás)

- Mr. Lee, I'd like to introduce Peter Crown. He's the president of our company.
- How do you do, Mr. Crown. It's a pleasure meeting you.
- I'm pleased to meet you too, Mr. Lee.

- I don't think we've met. Let me to introduce myself. I'm David Williams.
- Nice to meet you, Mr. Williams. I'm Stephen Backer.

- Tom, I'd like you to meet Susan Brady. She is in charge of our Boston office. Susan, this is Tom Clark.
- Nice meeting you, too.

SUGGESTIONS AND RECOMMENDATIONS
(javaslatok)

- You've looked over the records and met the staff, Mr. Crown. Do you have any suggestions?
- One thing I'd recommend strongly is hiring at least one more accountant.

- I want to buy a home computer. What kind do you recommend?
- If I were you, I'd get an LG. I have one, and I love it.

- Where shall we go for lunch, Barbara?
- Why don't we try the new place on the corner? I hear they have great sandwiches.

INVITATIONS (meghívás)

- We are having a few people for dinner on Saturday. We'd like you to join us if you're free.
- It's very nice of you to invite us. We'd love to come.

- Would you like to play tennis after work tomorrow?
- Thanks for the invitation, but I'm afraid I've already made plans.

- Why don't we continue our discussion over lunch?
- That's a good idea. There's a café right next door.

INTERRUPTIONS
(félbeszakítás, közbeszólás)

- May I interrupt you? Mr. Burke is on the line.
- Thank you. Tell him I'll be right with him.

(in a meeting)

- Excuse me… I have a question.
- Yes.
- Could you tell us how much these changes will affect the advertising budget?
- Certainly. I'll go into that in just a minute.

(at the door)

- Excuse me… am I interrupting you?
- Not at all. Come in. What's on your mind?

REQUESTING INFORMATION
(információ kérés)

- Dr. Kosmo, could you tell us how much has been spent on research for this project?
- I don't have the exact figures, but I believe it's around 50 million dollars.

- Do you happen to know where the sales meeting is going to be held next year?
- It's been in Boston the last two years, but as far as I know, a location hasn't been chosen yet for next year.

- I'm interested in the plan when you put the product on the market, Jim.
- Let's take a look at the timeline, Mary. That should answer your question.

PLACING AND RECEIVING CALLS

(telefonálás)

- Good morning. Apex Company. May I help you?
- Hello. May I speak to Mrs. Bennett, please?
- Who's calling, please?
- This is Kenneth Farrell.
- One moment, please, Mr. Farrell. I'll put you through.

- Hello. Eberly Electronics.
- Yes. Can I speak to Mr. Eberly?
- May I have your name, please?
- It's Mary Kelly.
- Oh, yes. Miss Kelly. Just a minute, please.

- Derby Food Store. This is Terry.
- Hi. I'm trying to reach Tim Lane. Is he available?
- Yes, he's here. Hold on a minute and I'll get him.

ASKING AND GIVING OPINIONS

(véleménykérés, -és adás)

- Let me ask you, Mrs. Stone, which do you consider to be the greater threat, foreign or domestic competition?
- In my judgment, foreign competition should be taken more seriously, Mr. Cole.

- You've seen the résumés, Steve. Who do you think is the best for the job?
- I'd say Kurt Walker. He's got the education and the experience to do a great job.

CERTAINTY AND UNCERTAINTY

(bizonyosság, bizonytalanság)

- Are you quite certain Mr. Bell is coming in today?
- Yes, I can assure you he is. I spoke to him myself.

- Are you sure that the prices on this invoice are correct?
- I'm absolutely positive. I got a new price list this morning.

- Are you positive we can afford to upgrade the equipment?
- After looking at the figures, I'm convinced we can do it.

ON THE PHONE: MESSAGES
(telefonüzenet)

- Good morning. This is Mr. Williams at Shop-Way. I'd like to speak with Mr. Melnick, please.
- I'm sorry. I'm afraid Mr. Melnick is in a meeting at the moment. May I take a message, Mr. Williams?
- Yes, please. Would you tell him to call me back?
- All right. I'll see that he gets the message as soon as he's free.

- Hello. Is Mr. Hawkins in? This is Mr. Richards.
- No, I'm sorry, he's out of town until Thursday. Is there something I can help you with?
- No, that's all right. I'll call back at the end of the week.

- Can I speak to Tom Carlson, please?
- Sorry, he's out to lunch. Do you want to leave a message?
- This is Nancy Hart. Would you ask him to call me? The number is area code 703-394-2325.
- O.K. I'll give him the message when he comes in.

COMPLAINTS (panasz)

- I think there might be a problem with our dinner bill. The total doesn't seem to be correct.
- I'm terribly sorry, sir. I'll correct it right away.

- Good morning. This is Mrs. Lee at United Technologies. I'm afraid the shipment of office supplies you delivered this morning wasn't complete.
- I'm very sorry, Mrs. Lee. Give me the order number and tell me what's missing. I'll take care of it for you.

- I'd like to return this VCR and get my money back. I bought it 2 weeks ago, and I'm not satisfied with its performance.
- I'm sorry, but unless there's something actually wrong with it, I can't take it back.
- I think I'd better speak to the manager, if you don't mind.

COMPLIMENTS (dicséret)

- Mrs. Hills, I'd like to compliment you on your presentation. It was excellent.
- Thank you so much. I'm glad you enjoyed it.

- I was very impressed with your project. Nice work!
- Thank you. I appreciate the compliment.

- Dinner was great. My compliments to the chef.
- Oh, it was nothing. I'm glad you liked it.

CONGRATULATIONS (gratuláció)

- Congratulations on your promotion, Mr. Carlson. I can't think of anyone who deserves it more than you do.
- Thank you very much. I appreciate the kind words.

- On behalf of the department, I'd like to congratulate you on your thirtieth anniversary with the company.
- Thank you, and thanks to everyone.

- I have just heard that your design won the top award from the Architect's Society, Jill. Congratulations! You must be very proud!
- Thank you. I can't quite believe it yet myself. I feel very fortunate.

BESZÉDKÉSZSÉG MÉRÉSE
Szituációs gyakorlatok

You are working for an international company producing chemical materials in Hungary. Answer the health and safety inspector' questions about

- the safety instructions in the workshops and in the factory (wearing clothes, smoking codes, trainings for the employees etc.)

You are talking to the managing director of an international tools manufacturing company about the internship (scholarship) in the company, which you want to apply for. Speak about your studies, school, special interest, and

- how you finance your studies, and how will internship help your carrier

You are responsible for the computer-park of the small bank where you work. Phone a computer-selling company, because you want to order some new desktop computers. Talk to the shop assistant about the specifications of the parts you want to order (house, mouse etc.), and

- the price (possibly discount price), the delivery time

You want to buy a good digital camera. Ask the shop assistant about

- the specifications of the camera (capacity, zoom, speed of downloading pictures, to shoot video, software, energy sources, different prices etc.)

You want to buy a mobile phone with big capacity. Ask the shop assistant about the specifications of the mobile phones (memory, downloading music, sending texts and pictures, memo recording, prices etc.), and

- extra features (video calling, Internet browsing, built-in camera etc.)

You want to buy a modern TV set. Ask the shop assistant about the specifications of the TV sets (screen size, remote control, pre-selection programs, channel tuning, guarantees, prices etc.), and

- extra features (LED display, s-band tuner, digital channel selection etc.)

Yesterday you bought a TV. Complain to the shop manager about some problems: no manual included, the channel tune in is difficult, the remote control problem

- ask for repairing or changing the TV

Yesterday you bought a digital camera, but some functions do not work. Complain to the shop manager about the problems: no manual included, does not shoot videos, the flash light problem

- ask for repairing or changing the camera

Yesterday you bought a mobile phone, but some functions do not work. Complain about the built-in camera, the tel. number recording problem, the menu doesn't show

- ask for repairing or changing the mobile phone

You want to go the Industrial fair in Amsterdam. Ask for information before the travel:

- the admission fee, accommodation, meals, opening and closing times

You are looking for a job at a job centre. Speak about the job you are looking for (IT manager, Computer specialist etc.), your qualification, your experience, and

- special wishes (money, bonuses, lunch ticket etc.)

You are talking to your friend, who wants to buy a new computer. Convince him/her to buy a laptop. Speak about the advantages and reasons of buying a laptop, and

- about some disadvantages

Talk to your grandmother and tell her about the advantages of Internet (finding information, sending letters, buying train tickets, booking hotels, advertising etc.)

- advantages for entertainment and culture (interactive magazines/books, language learning etc.), and some disadvantages (sitting for hours, back ache)

Your friend is phoning you because his/her scooter doesn't want to work. Ask if he/she checked the plugs, oil level, petrol tank before starting the engine, and

- when he/she used it, repaired it etc.

You are phoning your boss because your car broke down in the way to the office. Tell him/her what went wrong in your car (braking system, gearbox problem etc.)

- serious problem, you have to take it to the garage for repairing

You have a company that repairs air-condition sets. A client phones and asks you to come to his/her place because the system went wrong. You promise to come later because of missing spare parts, employee problems, holiday etc.

- Make arrangement for the next day.

The air-condition system that you bought last week went wrong in the office. Complain the shop manager about the situation (suddenly stopped, mechanics made mistakes etc.), and

- Ask them to repair it (guarantee) or change it

Your friend got two job offers in Saudi-Arabia and in Hongkong. Help him to choose between them. Saudi-Arabia: interesting job, high salary, few travelling opportunities, hot weather etc.,
Hongkong: high salary, high tax, good climate, many travelling opportunities, family can accompany etc.

As a purchasing manager you are buying a new photocopying machine. Ask about the specifications, the services to go with, the price, leasing possibilities etc

- Agree on delivery and payment terms.

You are working as a trainee engineer for the department of informatics. Complain the manager about the work (dull), the workload (overtime), low salary, working conditions (unpleasant), colleagues etc.

- Ask for transferring to another department.

Being a purchasing manager, you want to choose a better supplier, because of its bad quality goods, high prices, long delivery time etc.

- Explain the advantages of the new supplier.

You have been working as a technical engineer for a small company. Tell your boss that you are not satisfied with the task, the salary, the chances of development etc.

- Ask for better job and more responsibility within the company.

You have got a new colleague. Describe the company to him/her: company history, departments, subsidiaries, number of employees etc.

- Speak about lunch breaks, eating facilities, coffee- time, smoking code etc.

You are arranging a conference. Tell your colleagues what they should do: arranging conference program, conference room, audio-visual equipment, asking guest speakers etc.

- Booking accommodation, restaurants etc.

Give a report about your company's last year figures: Income, profit figures, shareholders (increase/ decrease), new investments (subsidiaries), expansions etc.

- Recruiting/laying off any staff.

You are representing your company at an exhibition. Talk to the customers about the profile, the profitable products, the innovations (new product/technologies), the foreign partners etc.

- Compare your products with the competitors' products.

You ordered some office goods (paper pads, flip charts, envelopes, folders, pencils, pens, clips etc.), but the consignment was late, and did not contain everything you ordered. Complain to the shop manager about the missing things.

- Ask for another quick consignment.

You are talking to a foreign partner about setting up a company. List the advantages (self-employment, developing expertise, flexibility, own time sharing etc.) and the disadvantages (strong competition, high taxes, heavy workload, big responsibility etc.)

III. WORDS AND EXPRESSIONS

Operating cycle	Működési folyamat
3 cylinder diesel engine	3 hengeres diesel motor
4stroke engine	4 ütemű motor
4-wheel drive	Össz-kerék meghajtás
Accelerator pedal	Gázpedál
Additional investment	Plusz befektetés
Advantage/disadvantage	Előny/hátrány
Assessment in writing	Írásbeli összefoglaló/ dolgozat
Automobiles and vehicles	gépjárművek
Base screw	anyacsavar
Basics of mechanical engineering	Gépészmérnöki alapismeretek
Be satisfied with	Elégedettnek lenni
Benefit from sales	Eladásból származó profit
Brake system	Fékrendszer
Burning of fuels	Üzemanyag égetése
Car repairing	Autó javítás
Carry light	Vezeti a fényt
Ceramic coating	Kerámia bevonat
Civil engineer	Általános mérnök
Clutch	Kuplung
Combustion	Robbanás, égés
Company performance	A cég teljesítménye
Compares favourably with	Előnyös az összehasonlításban
Computer aided production planning	Számítógépes gyártástervezés
Conventional memory chip	Hagyományos memória chip
Cooling system	Hűtőrendszer
Cylinder	Henger
Define the problem	Meghatározni a problémát
Depend on	Függ valamitől
Descriptive geometry	Leíró geometria
Design a solution	Megoldást megtervezni

Desktop/laptop	Asztali/hordozható számítógép
Diesel driven machine	Diesel üzemű gép
Different technologies	Különböző technológiák
Disc brake	Tárcsafék
Disposable/rechargeable battery	Kidobandó/újratölthető elem
Double spiral ramps	Dupla csigalépcső/rámpa
Download pictures	Képeket letölteni
Electrical spark	Elektromos szikra
Electronic circuit	Áramkör
Engineering ethics	Műszaki etika
Enter the competition	Belépni a versenybe (részt venni)
Entrepreneur and investor	Vállalkozó és befektető
Evaluate the solution	A megoldást értékelni
Exhaust valve	Kipufogó szelep
Experiment with sg.	Kísérletezni valamivel
Façade of blocks (houses)	Házak homlokzata
Features of colour TV	Színes TV jellemzői
Find practical solution (for…)	Gyakorlati megoldást találni
Foundation course	Alapképzés
Friction	Súrlódás
Front and rear axis	Első és hátsó tengelyek
Garage	Szervíz
Giant steel arches	Hatalmas acél ívek
Glass dome	Üveg kupola
Good result	Jó eredmény
Half shaft	Féltengely
Heat energy	Hőenergia
High compression ratio	Nagy sűrítési arány
High-strength alloy	Erős (anyagú) ötvözet
Ignition key	Indító kulcs
Improve efficiency	Hatékonyságot növelni
Incoming valve	Szívószelep
Industrial plant	Ipari gyáregység

Internal combustion engine	Belsőégésű motor
Insulation material	Szigetelő anyag
IT information technician	Számítástechnikus
Jet engine	Sugármeghajtású motor
Large-scale/mass production	Tömegtermelés
Low-strength aluminium	Gyenge alumínium
Machinery business	Gépeket gyártó és forgalmazó cég
Maintenance	Karbantartás
Materials of recycling	Újrahasznosítás anyagai
Measurement	Méréstechnika
Mechanical engineer	Gépészmérnök
More effective	Hatékonyabb
Net sales and revenues	Nettó eladás és bevétel
Official distributor	Hivatalos forgalmazó
Operating loss	Működési veszteség
Optical fibre/wire	Optikai szál/kábel
Optical zoom/lens	Optikai nagyító/lencse
Patented idea	Levédett ötlet
Piston	Dugattyú
Pressure regulator	Nyomás szabályozó
Primary tasks	Elsődleges feladatok
Process control	Folyamatirányítás
Production cost	Gyártási költség
Production engineering	Gépgyártás
Pump	Szivattyú
Reach a low point	Elérni a legalacsonyabb értéket
Reach a peak	Elérni a legnagyobb értéket
Reduce costs	Költségeket csökkenteni
Remote control	Távirányító
Repair	Javítás
Repeat the process	Megismételni a folyamatot
Resist stretching	Ellenáll a nyújtásnak
Resources (financial, human etc.)	Erőforrások (pénzügyi, emberi stb.)

Responsible for	Felelős valamiért
Rotary piston engine	Forgó dugattyús motor
Sales executive	Kereskedelmi igazgató
Science of flow	Áramlástan
Screen size	Monitor méret
Semiconductor industry	Félvezető ipar
Sensitive material	Érzékeny anyag
Service industry	Szolgáltató ipar
Skyscraper	Felhőkarcoló
Smart materials	Intelligens anyagok
Sophisticated chip	Kidolgozott/kifinomult chip
Sound-suppresser (material)	Zaj elnyelő anyag
Specialisation	Speciális képzés, szak(irány)
Speed up the process	Felgyorsítani a folyamatot
Steam engine	Gőzgép
Steel-hooped building	Acél alapú építmény
Supply and demand	Kínálat és kereslet
Take a big bite out of sg.	Nagy részt szakítani ki valamiből
Technical drawing	Műszaki rajz
Technical mechanics	Mechanika
Time-consuming methods	Időigényes módszerek
Tower building	Toronyház
Turbine blades	Turbina lapátok
UV beam	UV sugár
Vast foyer	Nagy folyosó
V-belt	Ékszíj
Wage/salary	Bér/havi fizetés
Water-resistant	Vízálló
Wide-band tuner	Széles sáv hangoló
Wireless technology	Kábelmentes technológia
Wood constructions	Fa építmények
Wood panel market	Fa panelek piaca
Working conditions	Munkakörülmények

IV.DESCRIBING GRAPHS

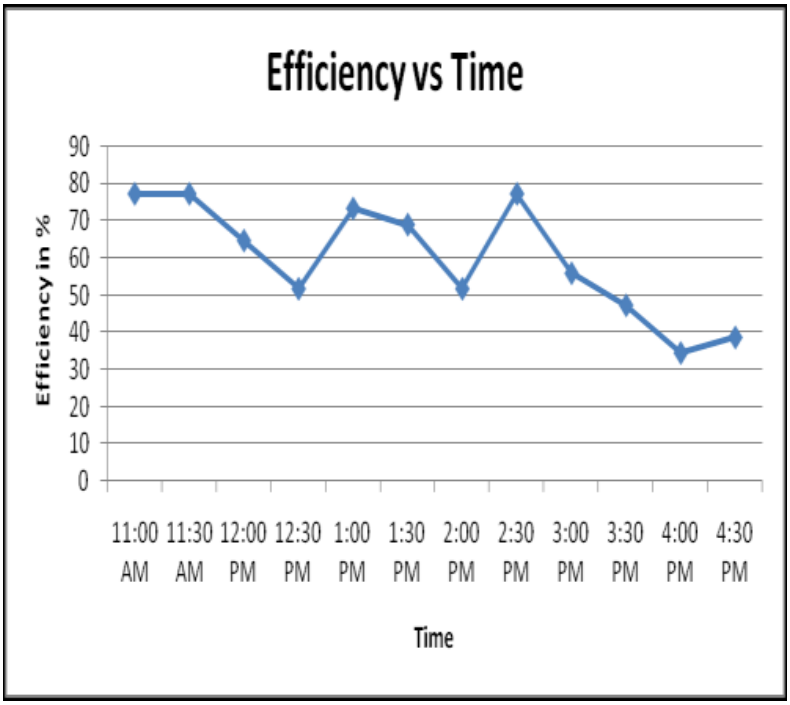
Logic of description:

1. name the type of graph or chart
2. read the title
3. explain what the chart shows (overall)
4. name the axes, what they show (horizontal, vertical)
5. name the units and measurements
6. explain the colours or other significant elements
7. mention the overall tendencies
8. choose 1 line or segment and start describing in detail.
9. describe the tendencies with verbs (grow) adverbs (sharply) adjectives (continuous) nouns (stagnation), using as many different synonyms as you can to show your vocabulary
10. compare and contrast
11. stress the interesting or significant values (largest, smallest, sudden) etc,

Types of graphs:

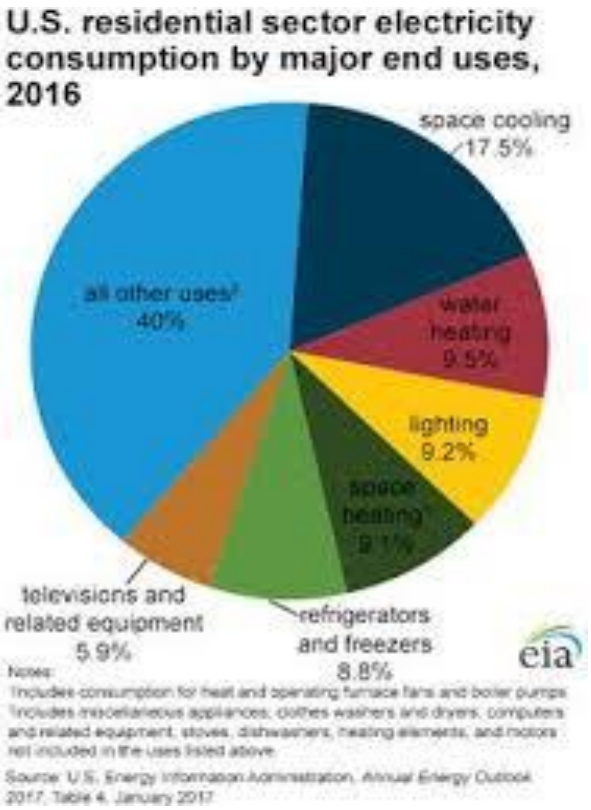
Line graph:

Solar power

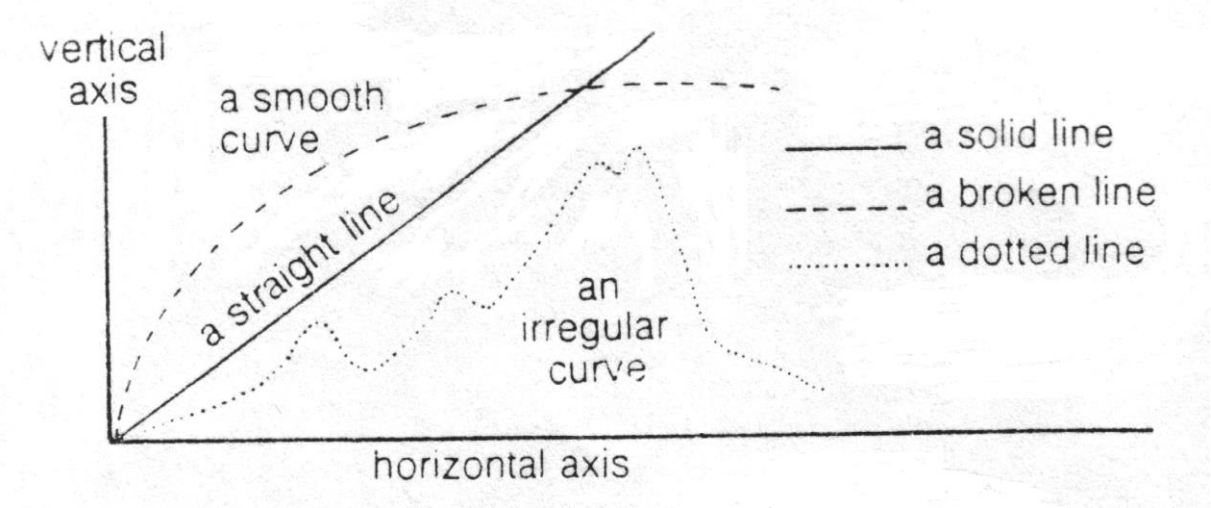


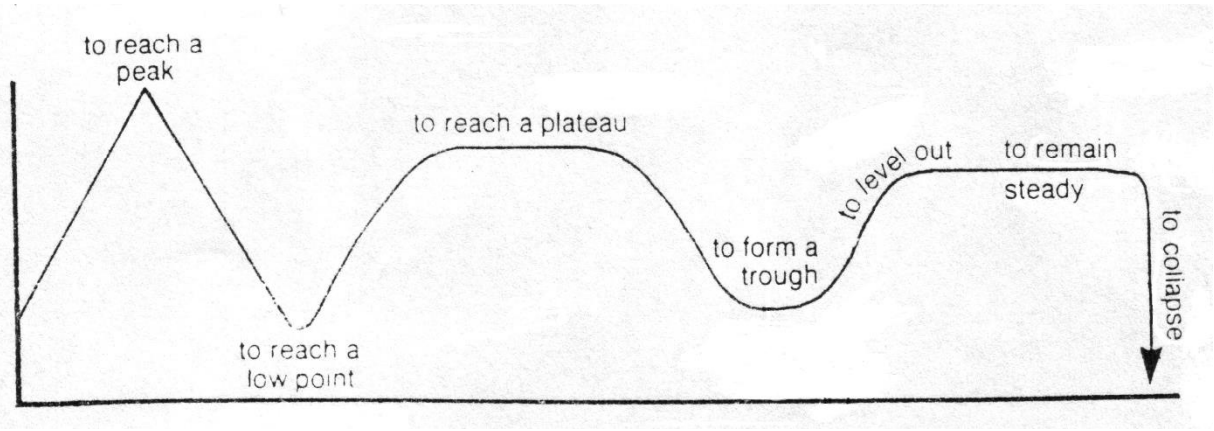
Bar chart:

Pie chart:



Special terms





Expressions to start the description with, after giving the main parameters:

1. As is presented in the diagram(s)/ graph(s)/ pie chart(s)/ table…
2. As (is) shown in the illustration…
3. As can be seen in the…
4. As the diagrams suggest…
5. According to the…
6. Categorically speaking…
7. Getting back to the details…

8. Now, turning to the details….
9. The data clearly shows that…
10. The diagram reveals that…
11. The data suggest that…
12. The graph gives figure…
13. It is interesting to note that…
14. It is apparently seen that…
15. It is clear from the data…
16. It is worth noticing that…
17. It can be clearly observed that…
18. It could be plainly viewed that…
19. It could be noticed that…
20. We can see that…

Vocabulary for bar charts:

comparison:

higher than…

lower than…

the lowest value….

the highest point….

the peak….

Vocabulary of pie chart:

….. accounts for….

….. is the quarter /the third/ the half… etc. of the consumption/productions

…. the biggest section is

…. the smallest section is….

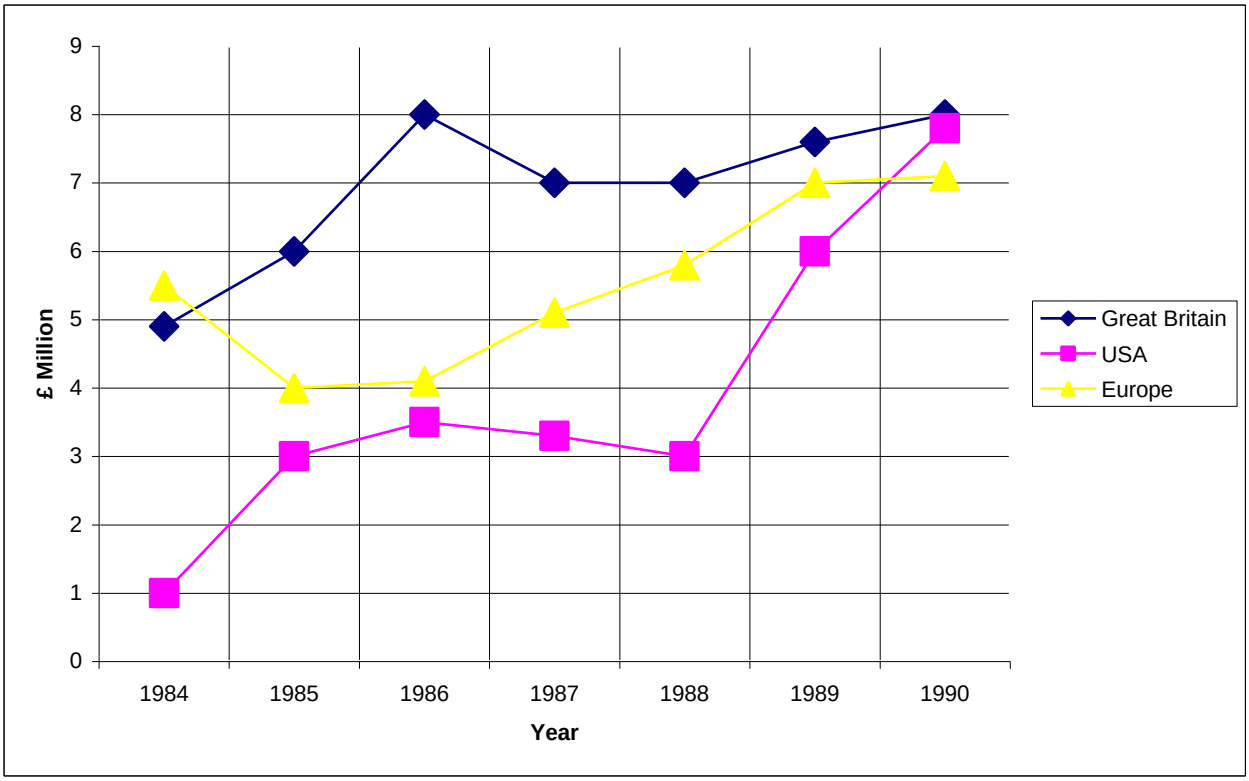
Vocabulary for line graphs:

Trend	Verbs	Nouns
	• rise (rose-risen) [to/by] • increase [to/by] • go (went-gone) up [to/by] • climb [to/by] • grow (grew-grown) [to/by] • double • treble/triple • boom • surge • soar • rocket [to/by]	• a rise [of] • an increase [of] • a growth [of] • an upward trend • a doubling in + n. • a trebling in + n. • a boom • a surge
	• fall (fell-fallen) [to/by] • decline [to/by] • decrease [to/by] • dip (dipped) [to/by] • drop (dropped) [to/by] • go (went-gone) down [to/by] • plummet [to/by] • plunge [to/by] • dive [to/by] • deteriorate • slump [to/by]	• a fall [of] • a decline [of] • a decrease [of] • a drop [of] • a reduction • a slump • a plunge • a plummet
	• do (did) not change • remain/stay + stable/steady/static/unchanged [at] • maintain the same level	• no change
Position	• stood at/was • level (levelled) off [at] • plateau (plateaued) [at] • level (levelled) out [at] • stabilise [at] • peaked [at] • reached	• a levelling off [at] • a plateau [at] • reached a high/peak of • reached a low of
Constant Change	• fluctuated [around]	• a fluctuation

Graphs to practise describing:

The graph below presents the sales of Trafalgar Products Ltd, a British company which makes hi-fi equipment and whose main markets are Great Britain, the USA and Europe. The graph shows the company's performance over the period 1984-88 and includes estimated sales for 1989 and 1990.

Total sales in Great Britain, USA and Europe

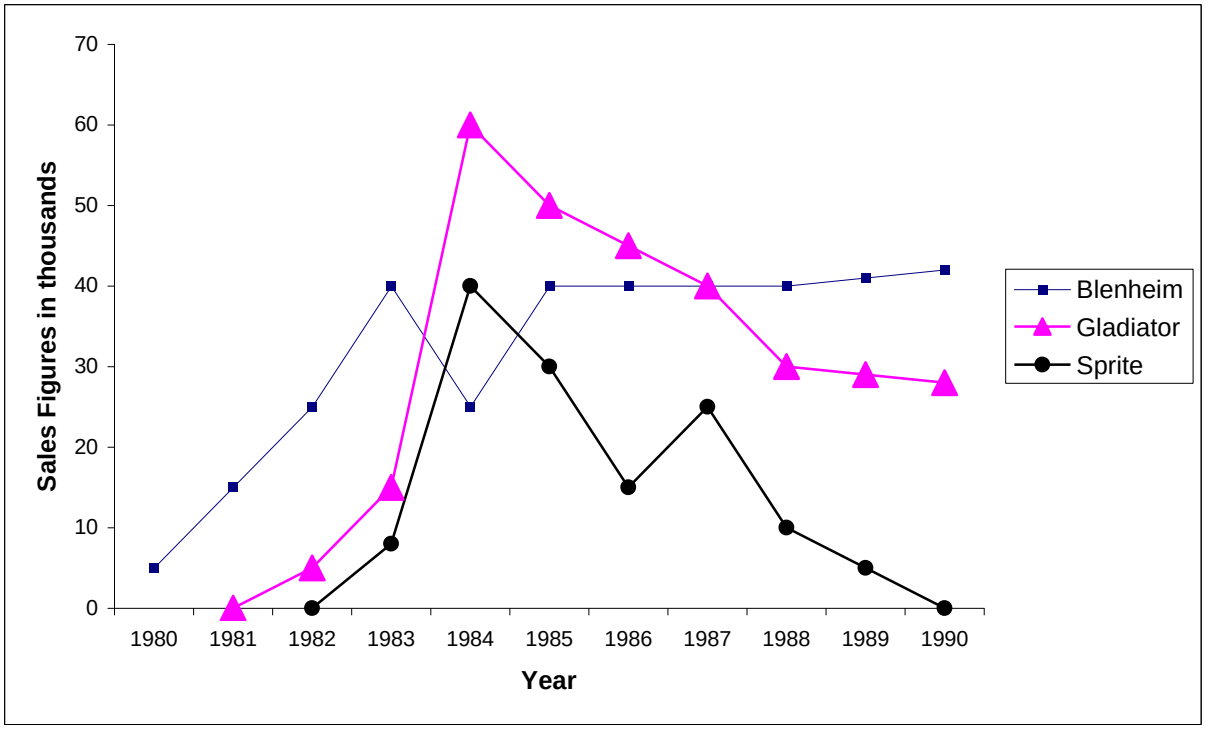


Key phrases **Useful phrases with nouns**
Useful phrases with verbs

to rise from £ 1m to £ 3m	a rapid/sharp/dramatic/substantial (increase) to(increase) rapidly/sharply/
to fall from £ 5m to £ 4 ½m	a slow/gradual/steady (decline)
	dramatically/substantially/slowly
to increase by 50%	a great/large/considerable (rise) etc.
to drop by 10%	a small/slight (drop)
to double/triple/quadruple	

Sample description

As you can see from the graph, results have been good during the five-year period. We're extremely satisfied with our growth in the area. Sales rose from just under £ 1m in 1984 to £ 3m in 1988 – that's an increase of 200%.
Looking at the trend in sales during that time, you can see that during 1984, they stayed roughly at the same level. Then, during 1985, they increased sharply to £ 3m. We continued to do well in 1986 when our sales reached a peak of just over £ 3 ½m. In 1987 they levelled off and last year dropped back to £ 3m.
The future in the USA looks very bright for us. We've got a new distributor there – a company with a nation-wide sales network. We estimate that sales will double, and even treble in the next two years. By the end of 1990 – this is an optimistic forecast – they should be in the region of £ 8m.



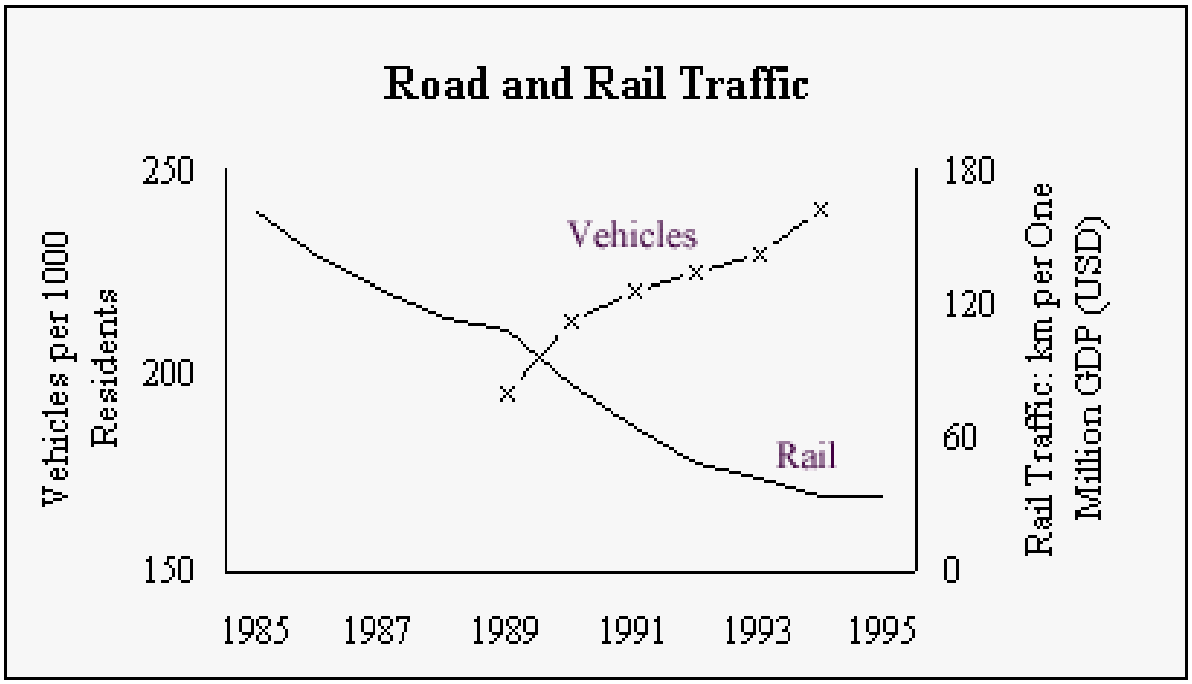
Situation: The Napier Automobile Company had three models in production in the 1980s: the Blenheim GLX, a five-seater executive car, the Gladiator GTI, a high-performance four-seater and the Sprite MG, a two-seater sports car. The graph below shows the sales figures for each model from 1980 to 1990.

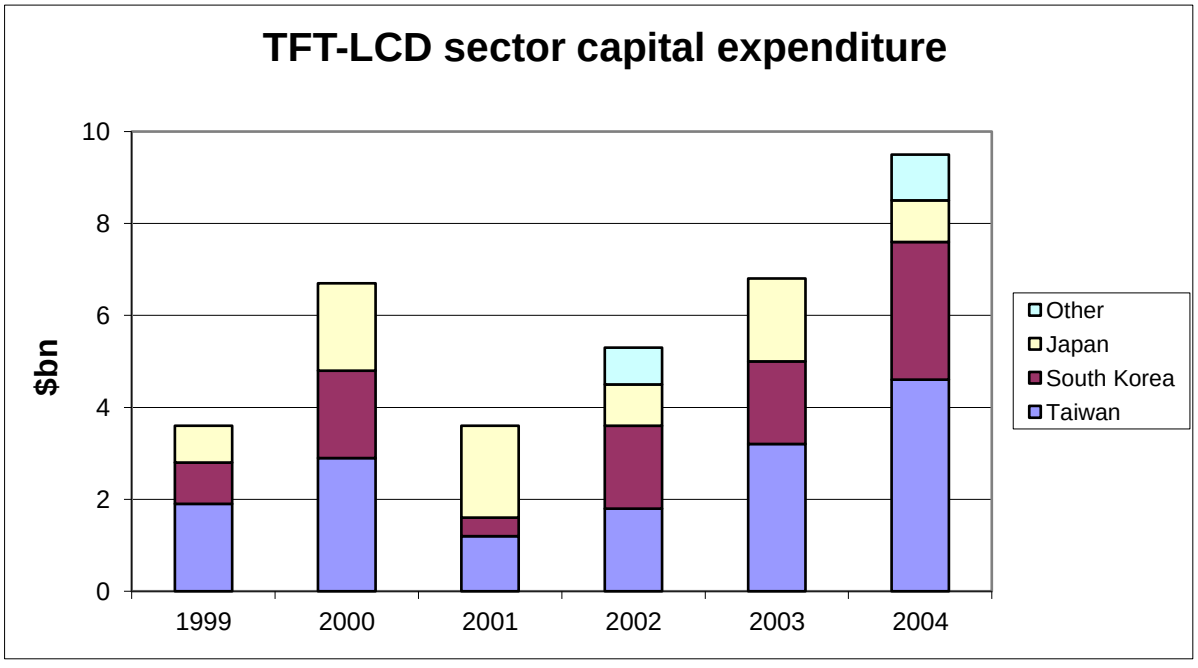
Feladat

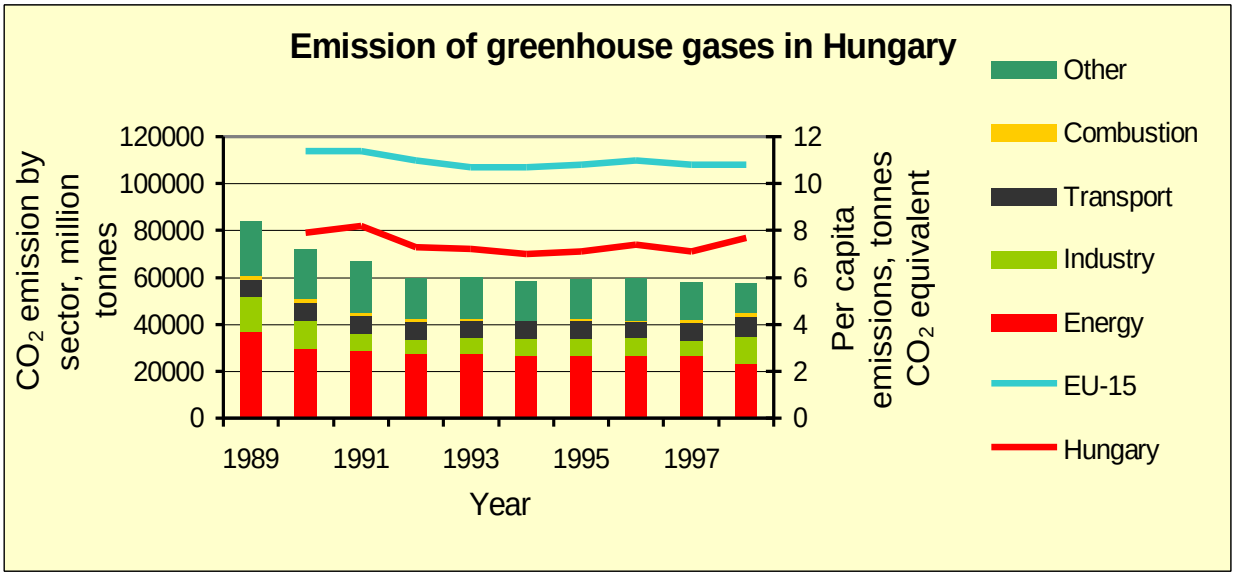
Helyettesítse be a hiányzó adatokat a diagram elemzésével a példa (0) alapján.

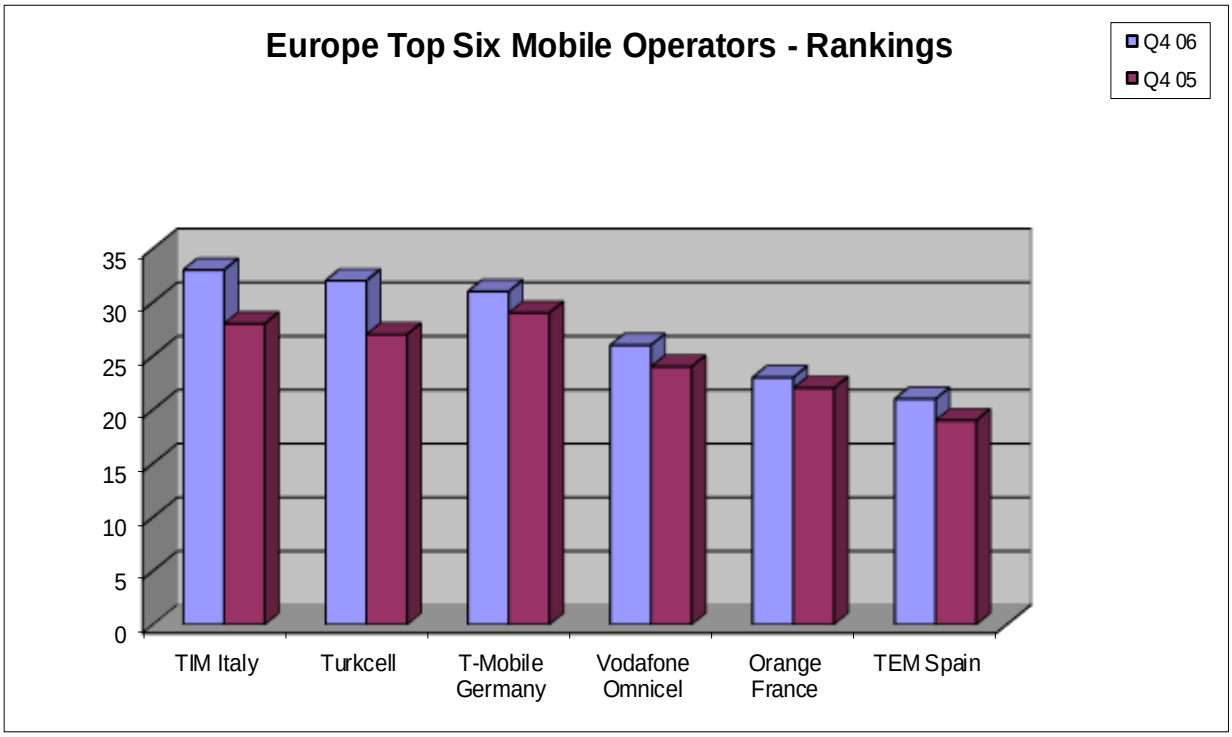
The Blenheim was already in production in **(0) 1980** and by 1983 was selling (1)…… per year. At that time it sold (2)…… the other models. However, in 1984 sales declined to (3)…… but they later (4)…… to 40,000 in 1985. Since then sales have remained steady and there has been a slight (5)…… in recent years. Although sales of the Blenheim were low in 1984, the company's other model, the Gladiator achieved (6)…… sales figure that this year. The Gladiator came onto the market in 1981 and within (7)…… years had achieved sales of 60,000 per annum. Later sales began to decline and by 1988 had reached only (8)…… a year. This model is still in production and sells about (9)…… per annum. The Napier Auto Company's third model, the Sprite, was in production between (10)…… and achieved its highest sales figures in (11)…… when (12)…… were sold. Sales declined rapidly, however, although they picked up in (13)…… three years before the production of this model stopped. At the end of the decade Napier Autos had (14)…… cars in production, of which the (15)…… has been the most successful overall.

(Key: 1. 40,000 cars 2. more than twice as many as 3. 24,000 4. rose 5. increase 6. a peak 7. two years 8. 30,000 9. 26,000 10. 1982 and 1990 11. 1984 12. 25,000 13. 1987 14. 66,000 15. Blenheim)


Road and Rail Traffic
Vehicles per 1000 Residents
250
200
150
180
120
60
0
Rail Traffic: km per One Million GDP (USD)
Vehicles
Rail
1985
1987
1989
1991
1993
1995


TFT-LCD sector capital expenditure
$bn
10
8
6
4
2
0
1999
2000
2001
2002
2003
2004
Other
Japan
South Korea
Taiwan

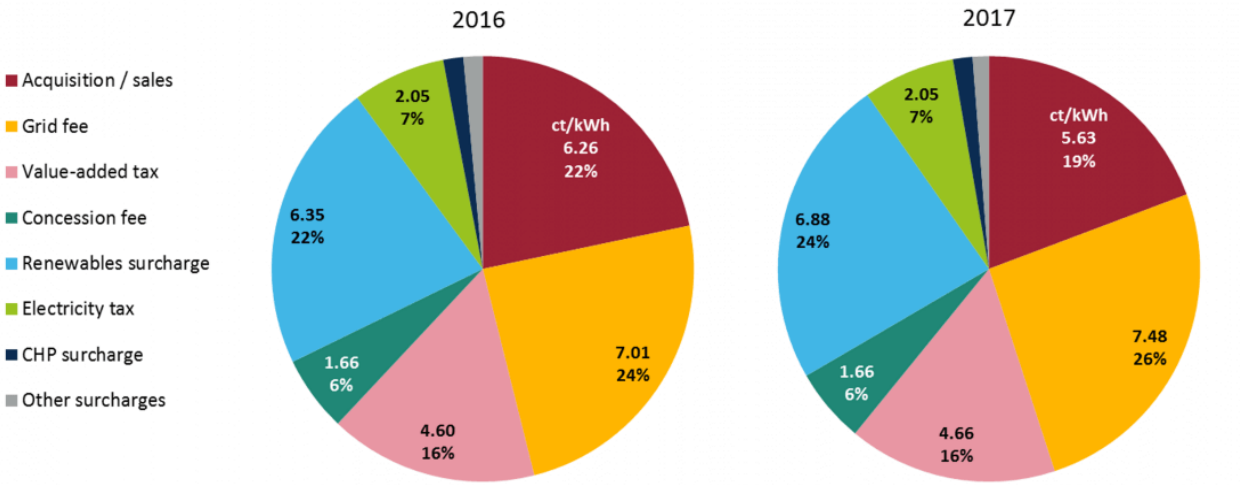

Emission of greenhouse gases in Hungary
CO_2 emission by sector, million tonnes
120000
100000
80000
60000
40000
20000
0
1989
1991
1993
1995
1997
Year
Per capita emissions, tonnes CO_2 equivalent
12
10
8
6
4
2
0
Other
Combustion
Transport
Industry
Energy
EU-15
Hungary

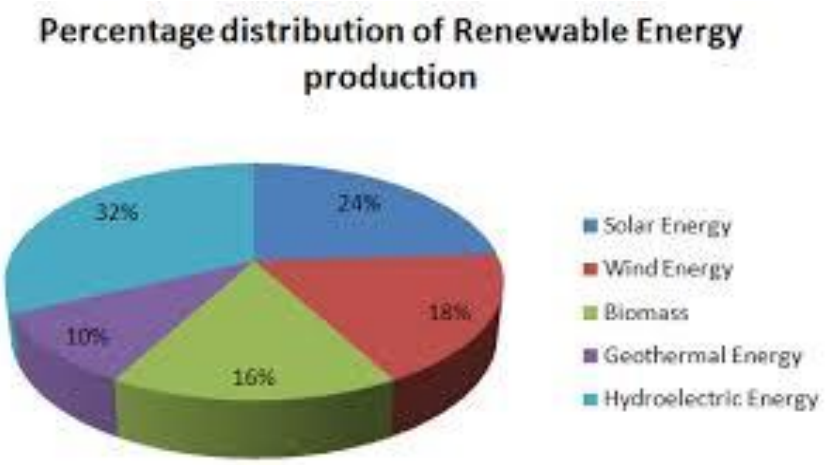

Europe Top Six Mobile Operators - Rankings
Q4 06
Q4 05
35
30
25
20
15
10
5
0
TIM Italy
Turkcell
T-Mobile Germany
Vodafone Omnicel
Orange France
TEM Spain

Composition of power price for households in 2016 and 2017.

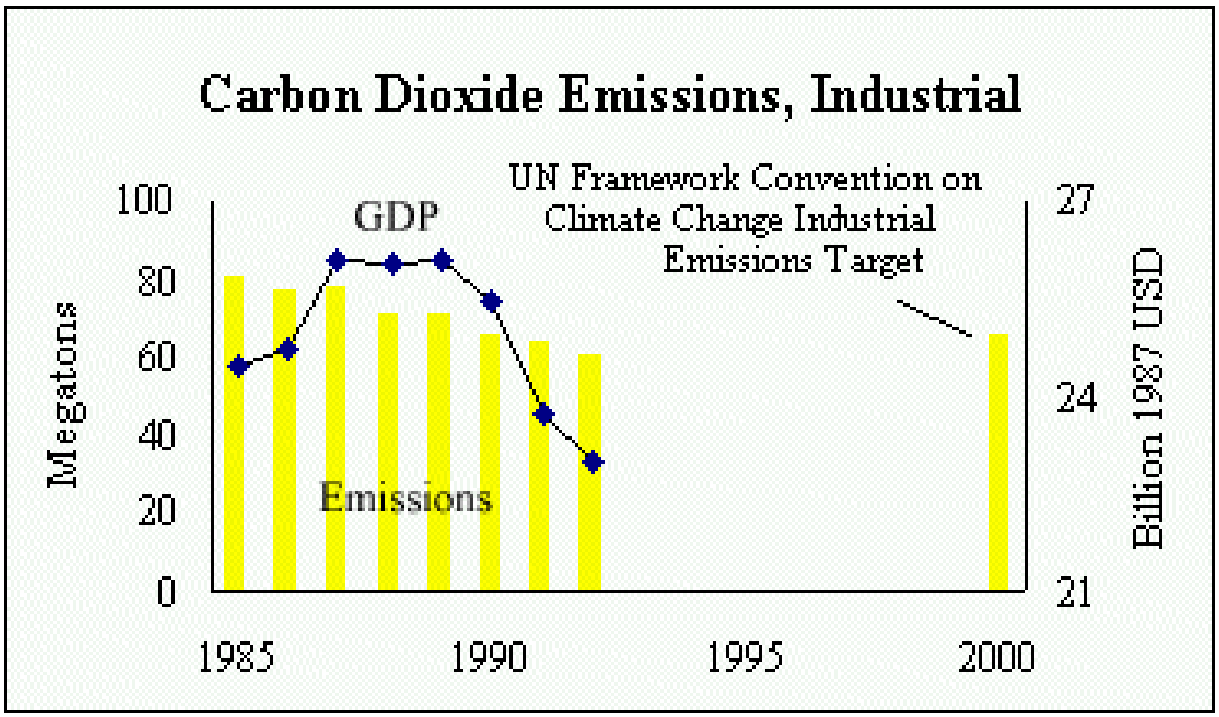
Data: BDEW February 2017.

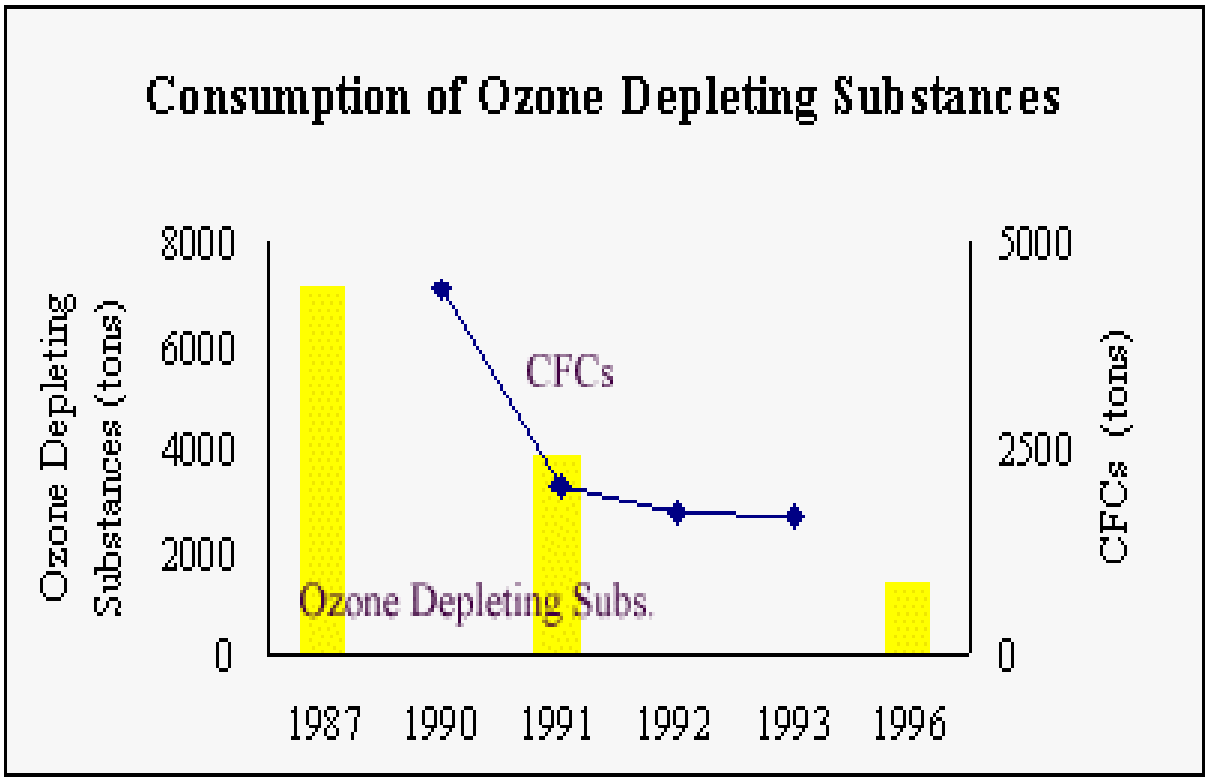
CLEAN ENERGY WIRE





The USA, 2018


Carbon Dioxide Emissions, Industrial
UN Framework Convention on Climate Change Industrial Emissions Target
GDP
Emissions
Megatons
Billion 1987 USD
100
80
60
40
20
0
27
24
21
1985
1990
1995
2000


Consumption of Ozone Depleting Substances
Ozone Depleting Substances (tons)
CFCs (tons)
CFCs
Ozone Depleting Subs.
8000
6000
4000
2000
0
5000
2500
0
1987
1990
1991
1992
1993
1996