**Automation in industry**

Ex.1

1. Many industries are highly automated or use automation technology in some part of their operation.
2. In communications and especially in the telephone industry, dialing, transmission, and billing are all done automatically.
3. Railroads too are controlled by automatic signaling devices, which have sensors that detect cars passing a particular point. In this way the movement and location of trains can be monitored.
4. The agriculture industry may become more mechanized, especially in the processing and packaging of foods; however, in many service industries such as supermarkets, for example, a checkout counter may be automated and the shelves or supply bins must still be stocked by hand. Similarly, doctors may consult a computer to assist in diagnosis, but they must make the final decision and prescribe therapy.
5. The concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is evolving(developing; growing)  rapidly, partly because the applications of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) techniques vary both within a plant or industry and also between industries.
6. In a refinery, crude oil enters at one point and flows continuously through pipes in cracking, distillation, and reaction devices as it is being processed into such products as gasoline and fuel oil.
7. An array (range, group, selection) of automatic-control devices governed by microprocessors and coordinated by a central computer is used to control valves, heaters, and other equipment, thereby regulating both the flow and reaction rates.
8. A steel furnace is charged (loaded with the ingredients), brought up to heat, and a batch of steel ingots produced. In this phase very little [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is evident. These ingots, however, may then be processed automatically into sheet or structural shapes by being squeezed through a series of rollers until the desired shape is achieved.
9. This technique approximates the continuous-flow concept but involves transfer machines
10. When synchronizing operations, it is possible to continuously transfer to the next operation, i.e. to carry out continuous production.
11. Automated machines are used in all or part of their production processes in communications in the telephone industry, Railways, medicine, agriculture, metallurgy
12. In every industry there is a concept of automation that fits its particular production needs. In some industries, automation quality control is not required, and in others , the opposite is true . For example, a pulp and paper mill is automated, and some work is still performed by a person.
13. Automation of a small store can solve most of these problems and allow the owner to free up time for questions about business expansion.Automation of trading in a small store allows you to achieve the following goals: transparency of product tracking; reducing theft and fraud by sellers; simplify work processes for staff and managers; product range optimization; minimization of sales errors caused by human factors; increase customer satisfaction with the service.
14. The widespread use of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) and its influence on daily life provides the basis for the concern expressed by many about the influence of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) on society and the individual.
15. Automation provides the basis for the care of society and the individual

Ex.2

1. Automatic
2. Agriculture
3. Inbatches
4. [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187)
5. Automatically
6. techniques
7. Automated
8. [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187)
9. Commerce
10. Influence

Ex.3

1. +
2. –
3. +
4. –
5. –
6. +
7. +
8. +
9. -
10. –

Ex.4

1. Механизация часто используется для обозначения простой замены человеческого труда машинами.
2. Автоматизация обычно подразумевает интеграцию машин в самоуправляющуюся систему.
3. Автоматизация произвела революцию в тех областях, в которые она была внедрена.
4. Едва ли найдется хоть один аспект современной жизни, на который бы не повлияла автоматизация.
5. Термин «автоматизация» был введен в автомобильной промышленности около 1946 года для описания все более широкого использования автоматических устройств и средств управления в механизированных производственных линиях.
6. Происхождение этого слова приписывается Д.С.Хардеру, инженеру – менеджеру компании FordMotorCompany.
7. В общем случае автоматизацию можно определить как технологию, связанную с выполнением процесса с помощью запрограммированных команд в сочетании с автоматическим управлением обратной связью для обеспечения надлежащего выполнения инструкций.
8. Автоматическая система способна работать без вмешательства человека.
9. Продвинутые системы представляют собой уровень возможностей и производительности, который во многих отношениях превосходит способности человека выполнять те же самые действия.