**Automation in industry (1, 2, 3)**

Exercise 1

*Ответьте на вопросы:*

1. Are many industries use [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) technology in their production process and to what extend this technology is used?  Many industries are highly automated or use [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) technology in some part of their operation.
2. What operations are automated in communications and telephone industry? In communications and especially in the telephone industry, dialing, transmission, and billing are all done automatically.
3. By means of what automatic signaling devices railroads are controlled? Railroads too are controlled by automatic signaling devices, which have sensors that detect cars passing a particular point.
4. What industries require less degree of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187)?  Agriculture, sales, and some service industries are difficult to automate.
5. Can we state that the concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is developing rapidly? 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. How can you explain the continuous-flow method of production, and in what fields of industry this method is used?  The oil and chemical industries, for example, have developed the continuous-flow method of production, owing to the nature of the raw materials used.
7. Can valves, heaters and similar equipment be operated automatically? If yes, how? Yes, the valves, heaters and similar equipment can be operated automatically. 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. How [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is used in certain stages of steel industry? A steel furnace is charged (loaded with the ingredients), brought up to heat, and a batch of steel ingots produced.
9. How do you understand step-by-step manufacture and assembly? This technique approximates the continuous-flow concept but involves transfer machines; thus, from the point of view of the auto industry, transfer machines are essential to the definition of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187).
10. What is the main principle of the continuous-flow concept in industry? This technique approximates the continuous-flow concept but involves transfer machines; thus, from the point of view of the auto industry, transfer machines are essential to the definition of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187).
11. What industries use automated machines in all or part of their manufacturing processes? Automobile, railroads, telephone industry,  oil and chemical industries and many other types of industries are use automated machines in all or part of their manufacturing processes.
12. Do you think that each industry has a concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) that fits its particular production needs? Give examples of full automated and semi-automated productions.  Each industry has a concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) that fits its particular production needs. For example, the Chinese company Changjiang Precision Technology has opened a new factory in Dongguan, where all production is fully automated and does not require physical human intervention. The plant produces components for cell phones, and to create them, the company has equipped Assembly lines with robotic manipulators with a total of 60 pieces.
13. Can you give examples of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) technologies used in commerce? There weighing of goods, pre-sale preparation of products -product labeling system, scanning of goods at the checkout, determining the price of the product, cash calculation without human intervention are used in commerce.
14. Do you think that the widespread use of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) influences on individual’s and society’s daily life? Yes, I think so.
15. Does [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) provide the basis for the concern of society and the individual? Yes, [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) and its influence on daily life provides the basis for the concern of society and the individual.

**Exercise 2**

*Заполните пропуски недостающими по смыслу словами, используя текст:*

1. Railroads too are controlled by automatic signaling devices.
2. The agriculture industry may become more mechanized, especially in the processing and packaging of foods.
3. In beverage and canned food industries some of the products are produced in batches.
4. When a steel furnace is charged and brought up to heat a very little  [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is needed.
5. The ingots are processed automatically into sheet or structural shapes.
6. The automobile and other consumer product industries use the mass production techniques of step-by-step manufacture and assembly.
7. Most of the modern industries use automated machines in all or parts of their manufacturing processes.
8. Each industry has a concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) that fits its particular production needs.
9. More examples of this can be found in almost every phase of commerce.
10. The widespread use of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) and its influence on daily life provides 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.

**Exercise 3**

*Соответствуют ли данные предложения содержанию текста:*

1. All industries are highly automated or use [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) technology in some part of their operation. Yes
2. In communications and especially in the telephone industry, dialing, transmission, and billing are all done manually. No
3. Railroads are controlled by automatic signaling devices. Yes
4. Agriculture, sales, and some service industries are easy to automate. No
5. Doctors consult a computer to assist in diagnosis and computer also make the final decision and prescribe therapy. No
6. The concept of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) is growing rapidly. Yes
7. In petrochemical industry an array of automatic-control devices are used to control valves, heaters, and other equipment. Yes
8. The [automobile industry](https://lms.kgeu.ru/mod/page/view.php?id=51537) uses the mass production techniques of step-by-step manufacture and assembly. Yes
9. In auto industry the volume of power consumed is essential to the definition of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187). No
10. The widespread use of [automation](https://lms.kgeu.ru/mod/page/view.php?id=50187) doesn’t influence our daily life. No