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SECTION 1. PEDAGOGY, LANGUAGE AND CULTURE IN EDUCATION

UDC 37

Bukharbayeva S.O., Alimbayeva G.A., Mazhiyeva S.S. The use of modern communication tools in teaching process

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***Abstract.** This article touches upon the problem of the use of modern information technologies in interactive teaching of languages. Online education is considered as a type of interactive teaching.*

***Keywords:** Skype, teaching via the Internet, information technologies, online education, learning languages;*

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Currently, as part of the change in the education system, the introduction of information, computer and Skype technologies in the educational process is actively being carried out. The use of Skype technologies, in particular in the process of teaching foreign languages, is an indispensable resource for improving the quality of education and developing the communication skills of students.

The use of interactive learning methods began with regular visual aids, posters, maps, models, etc. Today, modern interactive learning technologies include the latest equipment:

- interactive boards;
- tablets;
- computer simulators;
- virtual models;
- plasma panels;
- projectors;
- laptops, etc.

Also, modern information technologies are a leading tool in distance learning, since this type of training is possible only if there is an Internet connection and a computer. Interaction between the trainees and the teacher in the remote training system involves the exchange of educational material, messages by mutual sending them to the addresses of correspondents through computer networks.

There is another format in the field of distance learning, which has become its logical continuation with the development of the Internet and digital technologies - this is online training. Online training is the acquisition of knowledge and skills using a computer or other gadget connected to the Internet. The most important difference between online learning and distance learning is that, the student communicates and consults with the teacher live, performs tasks "here and now"

In order to teach and learn online, it is necessary to take care of the technical side of the training process, without which this training format will not be feasible.

Resources needed for online teaching:

- Computer with camera and microphone. To improve the quality of audio communication (avoid interference and foreign sounds), you need to purchase headphones with a microphone. You should also set up headphones/speakers and check the microphone before taking classes. The camera should be set so that the teacher is clearly visible, for this the lighting in the room should be bright.

- High-speed Internet connection. Speed of Internet connection depends on what types of connections you use.

Skype (Viber, Discord, ooVoo, TeamSpeak etc). There are many programs for voice communication and video calls. For yourself, you need to decide what functions you need for quality work. Note the following features: audio and video conferencing, the allowed number of people in the conference, the ability to send instant messages, presence indication, encryption and recording of conversations.

After analyzing existing Internet technologies and the possibility of their use for training purposes, we decided to use Skype, as it best meets our requirements. Moreover, in this program there are functions - display of the screen and presence indication. The obvious advantage of using this program is that many Internet users are already familiar with Skype, and some actively use it.

- Team Viewer. For some tasks, a teacher or student must be able to remotely manage a computer or jointly solve a task. With the help of the TeamViewer program, this becomes possible. In addition, during remote control, it is possible to use a white board, which contains a variety of shapes, handles, markers and dialog bubbles.

- Google Services. In addition to super-popular projects like Gmail, Youtube and Google Translate, Google has developed several lesser-known, but very interesting services. One of them is the Google Documents service, it allows you to create documents and work on them with a student. By submitting your homework, you can easily track when the student was doing it and make corrections in the same document. A huge advantage of Google platform is cloud storage information. By storing information in the cloud, you don't have to worry that all files might be deleted from your computer. Moreover, it became possible to send information from anywhere in the world.

As can be seen from the technical side of training, it is not so easy to master all the applications for training through the Internet, and not all categories of citizens will be able to

successfully cope with this. However, complexity in the technical side of the learning process is not the only factor that limits teachers in choosing students. An important factor is the age characteristics of students. We believe that online education of children and adolescents is ineffective, since online education is a process that requires attention, motivation and perseverance, and since many students do not differ, we believe that this form of education is not suitable for this age category.

As for adults, teaching for them is an important, but still auxiliary activity in relation to their main, social and labor activities, which in turn changes the adult's attitude to the teaching process. Through the prism of his social, working, personal life, an adult assesses the meaning and significance of his teachings. Adults want to learn if they see the need for learning and the opportunity to apply its results to improve their activities. In addition, they strive to actively participate in the learning process, bring their own experience and their life values to it, try to correlate the educational situation with their goals and objectives. Based on the above, online training is suitable for this age category.

Online learning becomes more popular than traditional learning every day (in classrooms with printed textbooks). The reason for this is primarily availability. An Internet lesson is cheaper than an exercise in a language center, since the student will not pay extra for the rental of premises that the teacher could rent offline. Moreover, adult students have the opportunity to learn the language, since it is much easier for them to allocate time to study in their tight schedule, since you no longer need to spend time on the road to the language center.

Online learning becomes more popular than traditional learning every day (in classrooms with printed textbooks). The reason for this is primarily availability. An Internet lesson is cheaper than an exercise in a language center, since the student will not pay extra for the rental of premises that the teacher could rent offline. Moreover, adult students have the opportunity to learn the language, since it is much easier for them to allocate time to study in their tight schedule, since you no longer need to spend time on the road to the language center.

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UDC 37

Iskakova A.T., Bakhytzhankyzy U., Kuttymurat G.A. Digital school of the future in pandemic conditions

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***Abstract.** This article is devoted to the digital school of the future in pandemic conditions.*

***Keywords:** the COVID-19 pandemic, education, information technology, distance education*

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The pandemic COVID-19 caused global changes in the social and economic life of not only individual countries, but also humanity as a whole. Long-term quarantine events have necessitated a fundamental revision of the established principles for the functioning of individual social industries, in particular those based on direct (contact) and long-term communications of a large number of subjects.

In the conditions of self-isolation, the educational industry underwent special transformations, which was forced to completely switch to distance learning. If higher education has turned out to be more prepared for this form of organization of the educational process (for example, in many higher education institutions there are special units with appropriate personnel and material and technical support for the implementation of distance education), then for institutions of general secondary education this has become a real challenge that they, in general, coped with.

The closure of educational organizations due to the spread of the pandemic COVID-19 led to the fact that students were forced to study at a distance. On the one hand, this situation was quite justified, as it allowed to protect people from the risk of getting sick with COVID-19. On the other hand, quarantine has posed new challenges for educational institutions as well as education authorities at the local and national levels.

Among the significant social and economic losses of society associated with the closure of general secondary education organizations due to the pandemic, experts from the United Nations Educational, Scientific and Cultural Organization (UNESCO) identify: increasing pressure on secondary general education institutions that remained open; problems of ensuring the objectivity of intermediate and final control of students' knowledge; the inability of most parents to support forms

of distance and home schooling; the high economic loss in productivity associated with the combination of childcare and distance work; stressful manifestations among students, teachers and parents; problems of care and upbringing of children from disadvantaged families; increased risk of psychotropic drug use and adolescent social behaviour; increasing the rate of outflows of children and young people from schools; increased exploitation of child labour.

At the beginning of 2020, all educational institutions became participants in the intensification of distance learning. The forced mass transition to electronic education during the period of self-isolation has become a kind of global challenge for the entire educational environment, in particular for secondary school.

In the modern conditions of informatization, there is a need to educate a developed younger generation, which will own modern technologies and be able to navigate the information space.

During quarantine, distance learning was introduced in most countries of the world and in Kazakhstan. This is a training in which students and teachers interact with each other indirectly, using different communication technologies, while being in different locations - at a distance. Modern digital technologies and network communication are used to organize distance learning. At the same time, all components of the educational process are preserved: goals, content, teaching methods, outcome assessment, etc., including the educational process management system.

For full distance learning, in addition to high-quality access to the Internet, the appropriate technical and software equipment of all participants in the educational process is needed.

Teachers were not provided with the necessary assistance from the institutes of postgraduate pedagogical education in developing their own skills in organizing distance learning in educational organizations, methodological materials, advice, support, recommendations on the use of electronic resources and software tools for working in a distance format.

Distance learning based on electronic formats can be carried out in two formats: synchronous and asynchronous. In practice, the correlation between the application of these regimes depends on the objective technical conditions for providing the school and the participants in the educational process - on the one hand, and on the age of the students who study, and the corresponding educational subjects - on the other hand. But, regardless of the proportion of their application, to organize the educational process, it is necessary to use an educational platform (or an educational site, cloud services, etc.), which will provide personalized access to all participants in the educational process to fulfill educational roles for fulfilling professional tasks. For example, teachers - for posting educational and didactic materials in electronic format, students - for obtaining educational materials and posting their own tasks, administration - for monitoring the process and results of educational activities. Such an educational platform (or software application), also called LMS (Learning Management System), designed to integrate digital learning tools, as well as the administration, management and distribution of training programs, and generate analytics of reporting of the training process. The purpose of the educational platform is to organize such

interaction between participants in the educational process with educational content and among themselves, which will achieve educational goals.

It should be noted that teachers except author's educational and methodical and didactic materials during the work with educational platforms can use the ready materials from various sources created especially for distance learning, for example, mass open online courses, materials of e-books, materials of repositories, video lectures on scientific and educational channels YouTube.

As the analysis of practice shows, in the world the most popular educational platforms are: Moodle, Google Classroom, WebTutor, iSpring, Collaborator, SAP LSO, Edmodo, MoClassDojo, etc.

Thus, in the process of implementing distance learning forms during the period of the coronavirus pandemic, several important points were revealed.

1. The most important requirements for the implementation of e-learning are: teachers and students have high-quality access to the Internet; teachers and students have the necessary technical support (computers, laptops, tablets, smartphones, etc.), as well as relevant software; a sufficient level of digital competence for teachers and pupils to meet educational challenges; access to educational content on the Internet, etc.

2. Theoretical material should be issued in small portions and in different forms (audio, video, text) so that students have more opportunities to absorb it.

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SECTION 2. WORLD ECONOMY

UDC 327,8

Khlopov O.A. The US Energy Policy towards Europe during the Ukrainian Crisis

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Abstract. *The United States today is the world's largest producer of oil and gas, but this does not provide the country with energy independence, since the prices of raw materials are by world markets. The United States promised to help Europe reduce its dependence on Russian gas and oil, and both sides are discussing the supply of American liquefied natural gas and hydrogen. The author argues that the chances of the United States for the transition to clean energy requires additional costs and US companies need minerals and resources including uranium that are essential for the energy transition. Prohibition of oil imports from Russia had led to an increase in gasoline prices will continue to rise and cause problems to European countries due to the sanctions imposed on Russia.*

Keywords: *climate policy, renewable energy, oil and gas import, sanctions, USA European Union. Russia.*

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Winning the battle against climate change over the next decade will require more than \$35 trillion in investment. Most of the world's governments don't have that kind of money for that. While many leaders of the countries are welcome the return of U.S. leadership on climate change, US President Joe Biden's is determined to obtain sufficient domestic and international political support for climate change [1]. Business closures, flight cancellations, vehicle downtime and factory closures during the COVID-19 pandemic have reduced global carbon emissions by about 7%. This example helps to illustrate the scale of the climate problem. To avoid a 1.5 degree increase in global temperatures, then the world will have to achieve the same reduction in carbon emissions every year for 10 years.

Governments around the world will need to fundamentally transform their economies if they want to sustainably reduce carbon emissions and do so with the least possible loss of people's livelihoods and this will also require new investments in green infrastructure and technologies on a large scale.

The annual production of electric vehicles needs to increase tenfold in order to achieve zero emissions by 2030. The number of charging stations needs to be increased by 31 times. According to one estimate, up to 2% of the US will need to be covered with solar panels and wind farms. Mining companies will need to increase the extraction of minerals used in these technologies by more than

500%. Unless practical uses for trillions of dollars of private finance appear on Biden's climate agenda, it will be hard for the United States to achieve this climate goals.

From an economic point of view, the governments of most countries in the world do not have the financial capacity to carry out the required level of investment. This is especially true for developing countries due to high levels of foreign-denominated debt, underdeveloped financial systems, and a weak monetary policy. This is also true for most European countries, which have limited fiscal space due to a lack of independent monetary policy, a common exchange rate, and EU fiscal rules on debt and deficits.

Politically, the Biden administration needs to appeal to both parties in Congress. A Green New Deal may be attractive to the US political left, but the political right wants solutions that involve the private sector. That means that private sector investment will not only be important, it will be critical. The ability to fight climate change depends on the ability of the world's financial systems to channel sufficient financial resources to where they are needed to exit a carbon-dependent economy. Fortunately, there are practical things the Biden administration can do globally to increase private investment in climate action.

The Biden administration is going to reform of global capital rules around the reserves that banks must have to withstand shocks. A growing body of research shows that borrowers with a strong environmental record are less likely to default. This means that these loans and the securities backed by these loans are safer than their environmentally unfriendly counterparts.

The United States wants to lead the process of standardizing what counts as "green" in the context of green finance. While Biden has done a lot - from re-joining the Paris Agreement, implementing climate-focused fiscal stimulus, signing a string of emissions cut orders, and hosting a global climate change summit, some observers see the U.S. return as more like returning to a truancy class than returning a great king ready to lead the battle.

President Biden has a tiny majority in Congress, making the legislation that would be required to accomplish much of his ambitious climate agenda unattainable. The President's Green Infrastructure Plan is already under threat in Congress. Biden could even lose his existing slim majority in Congress as early as the 2022 midterms, and potentially the presidency itself in 2024, to a Republican like Trump, putting his actions at great risk.

One of the main goals of Biden's climate summit was to give countries that are the largest emitters of greenhouse gases the opportunity to make more ambitious commitments under the Paris Agreement. A number of leaders have announced new commitments, including the leaders of South Korea and Japan. However, China and India, the world's first and fourth most emitting countries, have not done so, even though China had once committed to achieving zero carbon emissions by 2060. Limited fiscal space, complex domestic politics and a politically divided G20 mean that private finance could be a critical way to make progress beyond mere rhetoric [2].

Success in combating climate change will depend on whether the US financial system is up to the task. Without key reforms that lock in the real value of green investment, this will not happen. Moreover, they have some other energy problems and intentions towards Russia and European Union.

The United States seeks to oust Russia and take its place as a major supplier of energy resources to Europe. This is important not only for the profits of US oil and gas companies. Much more important is another goal - to firmly tie Europe's economic interests of America's, so that it will always be on the side of the United States. If Europe begins to buy American energy resources in large quantities, the US will have more opportunities to interfere in the EU's independence strategy. The efforts to lure Europe to its side in energy supplies are fully consistent with the long-standing US tactic, which intends to "steal" Europe from Russia. This tactic dates back to the Cold War, when the US denounced Europe for buying gas from the Soviet Union, claiming that it financed it in this way.

The EU demonstrates a certain duality of its positions. The concept of independence from Russian fossil fuels, which must be realized in the coming years, but at the same time refuses to blindly follow Washington's sanctions policy against Moscow. It is a big question to what extent the concept of EU independence will be realized, and that the EU's heavy dependence on Russian energy resources will not weaken in the near future.

In European countries 40% of gas consumed, 27% of oil and 46% of coal come from Russia, and the United States do not buy Russian gas at all, but have introduced a complete ban on the import of Russian energy carriers. The UK government will stop importing Russian oil until the end of 2022. However, the EU countries did not follow the example of the Anglo-Saxons. The Europeans managed to agree only on a policy of reducing dependence on Russia, which, like any policy, can change under the influence of circumstances.

The situation around Ukraine has prompted the European Commission to unveil plans to free Europe from dependence on all Russian fossil fuels "well before 2030" and reduce its dependence on Russian gas by two-thirds by the end of this year. But it is not yet clear how the Americans, British and Europeans will be able to replace Russian energy resources.

The proposal for a total embargo on Russian energy supplies has caused divisions among the bloc's members. The strongest supporter of total sanctions against Russia is Poland. While the country will suffer from disruptions in gas supplies from Russia, the Poles hope they are well-prepared due to increased US liquefied natural gas (LNG) imports and the construction of the Baltic Pipe, which will bring gas to Poland from Norway.

The United States imposed an embargo on direct purchases of Russian energy resources - oil, petroleum products, coal and LNG. At the same time, Washington banned American companies from direct investment in Russian energy exports. According to Russian Energy minister Alexander Novak, these restrictions did not greatly affect Russia, since domestic companies supplied about 3% of export oil and 7% of export oil products to the United States [3].

Earlier, US Republican senators proposed refusing to purchase Russian uranium, saying that they would be able to mine it in a “greener way” in Wyoming [4]. The US is the world's largest producer of nuclear electricity. Of the 440 power units in the world, 93 are located in the United States. 55 American nuclear power plants with a total capacity of 95.5 GW generate 19.7% of electricity in the United States. According to the Energy Information Administration (EIA), by the end of 2020, about 90% of the uranium used in the United States is imported and 47% of this import supply from Russia, Kazakhstan and Uzbekistan.

The uranium market in the US is controlled by two large groups of suppliers. Canada and Australia supply 34%. Russia and Kazakhstan - 38.6%. Rosatom owns controlling stakes in the state corporation Kazatomprom. Kazakh uranium is enriched in Russian plants. The only commercial uranium enrichment facility in the United States is located in New Mexico and is owned by Urenco.

With the ban on imports of Russian uranium, this company cannot promptly increase the production and enrichment of nuclear fuel. The plant's capacity is 4.7 million SWU/year, while the US requirement is estimated at 12 million EPP/year. Officially explored uranium reserves in America are only 1% of the world's [5].

On March 17, 2022 a group of Republican senators introduced a bill that would ban the import of uranium from Russia into the country in connection with the events in Ukraine. This is stated in a statement by the initiator of the bill, Wyoming Senator John Barrasso, known as an active opponent of Nord Stream 2. On the news, uranium futures rallied to \$56.35/lb, just below the record levels since Japan's Fukushima-1 accident that happened in March 2011.

A number of American energy companies (Duke Energy Corp, Exelon Corp), as well as the US Atomic Energy Institute asked the White House not to impose sanctions against Russian uranium supplies. The American nuclear power is dependent on cheap Russian uranium. US nuclear industry lobbyists have used their leverage to convince the White House not to cancel imports of uranium from Russia. Historically, uranium was enriched in the United States using the inefficient and expensive gas diffusion technology, while in the USSR it was enriched using centrifuges that required 50 times less electricity. Therefore, immediately after the end of the Cold War, the Americans switched to Russian enriched uranium, which cost them much less.

Now the Westinghouse Corporation fills fuel assemblies for reactors with either European uranium purchased from the British-German-Dutch concern URENCO or Russian uranium supplied by Techsnabexport. Washington seriously lags behind the world leaders in most areas: in uranium mining, in the construction of nuclear reactors, and in the management of spent nuclear fuel. For the transition to full self-sufficiency in nuclear fuel, the United States will have to spend a lot of time and money.

Russian uranium averaged about \$25/lb in 2020, which is cheaper than Kazakh uranium (\$33/lb), Canadian uranium (\$35/lb) or Australian uranium (\$39/lb). The price per pound of the American Canyon mine, located near the sacred site of the Havasupai Red Butte tribe, is \$50.

Many American Indian tribes oppose the mining and processing of uranium on their lands. The uranium industry has had a devastating impact on Navajo lands, leaving over 500 abandoned uranium mines that still pollute the soil and water. For decades, the Havasupai tribe has opposed the Canyon mine on their ancestral lands and has called on the US Department of Energy to remove the mine from any federal uranium mining program. Many tribes support a permanent ban on new uranium mines on federal lands around The Grand Canyon. In southeastern Utah, activists are pushing for the closure of the only operating uranium enrichment plant in the United States, located near Bears Ears National Monument.

The chances of passing a bill to ban Russian uranium imports fluctuate. The bill was opposed by the liberal media. The Washington Post conducted its own investigation into Senator John Barrasso's technical rationale for the bill, which found that Barasso's numbers are probably exaggerated and his calculations are implausible, and his math does not make much sense [6].

The futility of resuscitation of the American uranium industry is emphasized by the fact that last year the US Congress allocated \$75 million to finance the development of American uranium reserves, but since then not a cent of this money has been spent [7]. The United States, meanwhile, pushed through Germany's consent for a ban on uranium imports from Russia. The German Permanent Representative to the EU announced the new position of Berlin, saying that he not only agrees with oil sanctions, but also actively supports a phase-out of oil, and not just a price cap, as well as a ban on Russian uranium.

A sharp jump in uranium prices is beneficial to the world's leading suppliers of nuclear fuel for nuclear power plants, among which the American corporation Westinghouse is in the lead. Having achieved Europe's refusal to import Russian uranium, the Americans will sell them exorbitantly expensive fuel for the remaining nuclear power plants in the European Union.

If, nevertheless, the United States prohibits the import of Russian uranium, then this will turn out to be even more negative costs to the United States than those currently observed in the United States due to Washington's embargo on Russian oil, gas and coal. This may lead to the closure of a number of power units of nuclear power plants in the United States and the need to look for other suppliers in the uranium market. But Washington will definitely not be able to quickly find them. At the same time, Russia will find new buyers of uranium, since nuclear power plants and power units continue to be built in many countries of the world, which will create additional demand in the market [8].

If Russia stops exporting uranium to the United States and the European Union, it will form a new, more reliable market on more favorable terms, in which India, China and Iran can become participants.

The growing energy crisis is forcing the Western media to admit that Russia is winning the energy war. The article in the Time magazine argues that Russia has long recognized the effectiveness of energy as an instrument of foreign policy because it is an energy and resource superpowers. If war

is an extension of diplomacy by other means, then energy warfare is the greatest diplomatic tool of all [9]. Recognizing Russia's success in this operation, the publication predicts that a sharp increase in gas prices could cause a catastrophic energy crisis in Europe.

The United States, which cannot do without Russian uranium, imports from Russia more than 16% of the uranium raw materials needed for American nuclear power plants and also suffers from a sharp jump in nuclear fuel prices. Nevertheless, a number of American energy companies (Duke Energy Corp, Exelon Corp), as well as the US Atomic Energy Institute, are pleading with the White House not to impose sanctions on Russian uranium supplies, despite a bill submitted to the US Congress to ban its imports.

Americans are extremely annoyed that, against the backdrop of the most severe sanctions, Russia began to earn much more than before the start of the military operation in Ukraine. In two months of a special military operation Europe bought Russian energy resources for \$46 billion, which is more than twice the cost of Russian energy carriers imported by EU countries during the same period last year [10].

No sooner had Biden announced the release of a million barrels of oil from strategic reserves to the market daily than the United States began to hastily buy oil on the free market, fearing the depletion of its reserves. In the US, natural gas stock prices soared more than 18% in three days in May, to their highest level in nearly 14 years. In April, the price of gas has already increased by 30%. And over the past year, gas prices in the US rose by 168.5% [11].

The EU countries are already covered by the so-called fuel poverty. For example, in the UK, more than a quarter of the homes of 15 million people suffer from fuel poverty, as the electricity bill has increased by 50% in recent years. Children growing up in cold, damp and moldy homes with insufficient ventilation have higher than average rates of respiratory infections and asthma, chronic disease and disability [12].

In 2020, around 36 million people in the EU were unable to provide adequate heat in their homes, according to official figures from the European Commission. And this is even before the record jump in energy and electricity prices caused by anti-Russian sanctions. At the same time, the EU recognizes that the measures taken to combat fuel poverty are completely insufficient. Despite billions of euros in aid for EU citizens most affected by fuel poverty, sky-high energy prices are further fueling inflation and fueling social discontent in Europe.

Analysts at the Copenhagen Business School called fuel poverty the "new pandemic" but offered no way to combat it. There are no chances for a decline in energy prices in the coming years. The era of expensive natural resources and their scarcity has begun [13]. The energy crisis and the resulting industrial crisis are on the rise. Since the European Union dutifully follows in the footsteps of the United States, the economic situation will continue to deteriorate, as Europe will pay more for American energy resources than for Russian ones.

The change in the US energy policy under the new President D. Biden represents a return to the policy of US President Barack Obama. The situation has changed significantly in recent years, however. The US has been cutting greenhouse gas emissions by shifting away from coal to gas. In principle, this looks like a normal "gas" transition from coal to renewable energy sources. The new program sets a very high goal to zero emissions by 2050 along with the EU. Shifts in environmental policy will create any additional costs in the energy industries and increase uncertainty for capital investment.

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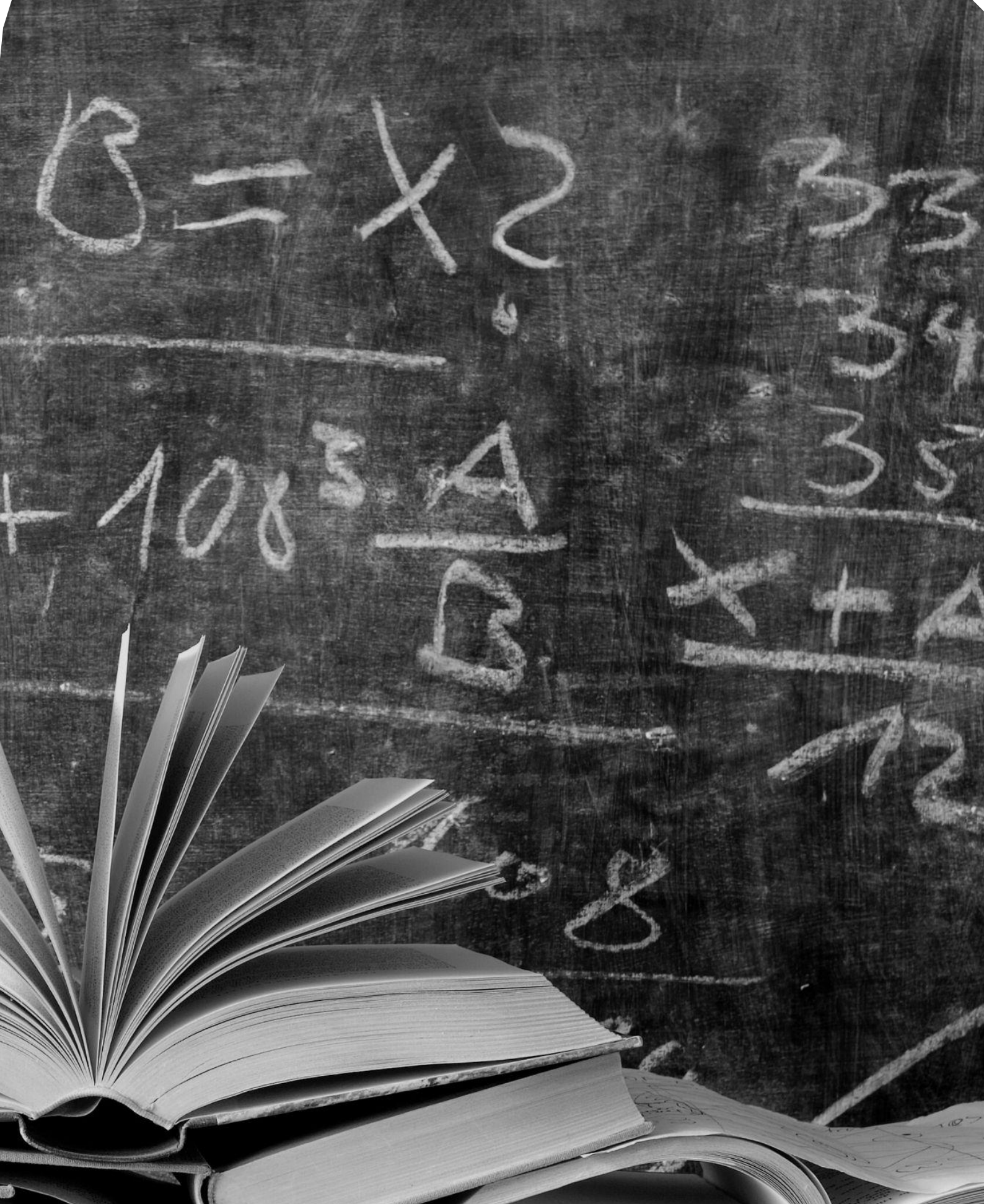
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