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UNIFICATION OF MATHEMATICAL TERMS: ALLOMORPH SIGNS IN GERMAN AND UZBEK

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Introduction. Mathematics of human thought as his deep knowledge in the sphere of culture and language different most ancient and universal footprint he left. Each period in the development of scientific and mathematical terminology of the society for the accuracy, consistently applied and scientific communication effectiveness was determined to be mutually compatible. The development of modern science, during the period of international scientific cooperation, the exchange of scientific literature in different languages and education in the process of mathematical understanding that is expressed in terms of the particular actual we have only optimized the occupation continues.

During the historical development of mathematical terminology developed in different directions in German and English. European scientific school of mathematical thought is closely associated with the German language, many mastered directly from Latin and Greek sources terms. In English, mainly in English, forscha later in the form of milliylashgan entered through the terms that the Russian language has been applied. Nevertheless, both languages as a result of the introduction of international terminology terminologiyasida also izomorf (similar in form and content) and the internal resources of the language allomorf formed on the basis of national character (representing a different form of understanding) characters. For example, **“logarithmus” (to.) – “logarifm” (uzbekistan).)**, **“the sinus” (to.) – “the sinus” (uzbekistan).)** terms like izomorf acquires the features. They are almost the same when we look at transforming as a result of fonetik compatibility is in the form of scientific communication is used without problems. However, **“winkel” (to.) – “the corner” (uzbekistan).)**, **“fläche” (to.) – “surface” (, uzbekistan.)** while terms like character allomorf if you have additional comments or lug'aviy in the process of adapting the international standards requires consistent interaction. This is from the point of view, mathematical terms, we have optimized not only in linguistics, but the pressing issue for both scientific and pedagogical practice. Or vice versa from English to German language translation of science and mathematics in the process of the correct use of the terminology of the topic to be the mean level has a direct impact on readers. In addition, the results of the research in the use of terminology unifikatsiyalangan also declared at the international level is required. Another factor that determines whether iboratki actual research results, not only in the scientific field of mathematics, in particular in the current period, but also computer science, physics, economics and other sciences continues to provide basic terminology base. So, identify signs and allomorf izomorf of mathematical terms in German and English, and to make a comparative analysis of them, we have to make to the development of the optimized engine in the development of scientific cooperation plays an important role. The purpose of this article – mathematical terms in German and English, we have optimized on the basis of their capabilities and symptoms of izomorf allomorf on the scientific aspects of many is to give. From this purpose the following tasks were identified: the source and the historical features of the formation of mathematical terms in English German and analysis. Terms and divide them to groups, identify signs and izomorf allomorf. We have optimized on the basis of comparative analysis show opportunities. Scientific-pedagogical practice to develop recommendations for the standardization of terminology on. Thus, we have optimized through the study of the process of mathematical

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terms and signs izomorf allomorf not only linguistically, but also the comprehensive scientific problems. The results of this research linguistics, and students in mathematics education is also important to be able to practical use.

Method. We have optimized terminology mathematical terms in German and English linguistically and analysis methods of studying the combination of supports. The results of scientific research competence on the basis of the results of several methodological approaches were selected to ensure that they are clear and consistent. **1. The method of comparative analysis.** Through comparative methods of applied mathematics terms in English and German lingvistika fonetik, morphological and semantic aspects were compared. This method terms: Shakliy of fit (izomorf signs) – fonetik similarities be associated with the level of development of the international terminology; Shakliy gap (allomorf signs) – created on the basis of the national language or translation of the terms entered through the difference; Mazmuniy stability – the concept of the semantic framework to be applied in the same or different in the two languages as it gave me the opportunity to identify aspects. For example, *Sinus – the sinus* is observed in terms of the combination of form and meaning, if *Winkel angle, the* difference in terms shakliy was realized. **2. Method Deskriptiv.** Supports a method to quantify deskriptiv terms of form and content. A glossary of terms study on the basis of each of them: etymology, a scientific source to be used in semantic scope, the form of options will determine. Using these methods, for example, in English *girth* with the terms of the German language in *Kreis* , although different in terms of when we look at transforming, express the same mathematical concept on a scientific basis was provided. **3. Struktur-semantic analysis.** Will analyze the structure and the semantic structure of mathematical terminology. Thus, attention is paid to the following: roots and supplements – construction of morphological terms (e.g.,*Geometric – geometry*). The basis of Greek and Latin – the source of international terminology (e.g.,*Parabel – parabola*). National formation of the Uzbek language in*the corner, number, surface* in German language with terms such as *Winkel, Reihe, Fläche* was checking the terms. Analysis of the international struktur terms (izomorf) and national (allomorf) will take the function of separating the main criteria groups. **4. The source base.** Research from the following sources was used: dictionary of terminology in the German language: dud agent. xn. *Mathematik Wörterbuch*. Mannheim: Verlag In Dud In Faen. Helmut Aries. *Lexikon der Mathematik*. Berlin: Spring. Sources in English: a glossary of English (academy of sciences). Published mathematics textbooks for the school and higher education institutions of uzbekistan. International standard terms: jesus and terminology iupac recommendations. This source general the form of a list on the basis of comparative analysis of terms for the corps was formed. **5. The stages of analysis.** The research was carried out in the following stages: gathering basic mathematical terms in German and English. Fonetik their morphological and semantic signs were allocated to groups by identifying and izomorf allomorf. The proximity of international standards and national uniqueness terms were assessed. We have developed practical recommendations for optimized.

Result. In mathematical terms as a result of the comparative analysis of German and English and the corresponding variations in their content and form, was tizimlashti. Research determine, terms are divided into three main groups: izomorf terms, terms and izomorf allomorf partial terms. **1. Izomorf terms.** This group includes terms that are very close to each other from the aspect of form and content. The Greek and Latin languages have mainly come from their source to almost all languages in the same form as in the international scientific language is applied. In German and English it is applied with small fonetik compatibility:

Nemischa	English	Comments

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Logarithmus	Logarifm	the Greek word "logos", and "arithmos" from the root
Parabel	Parabola	Greek "parabola"from
Geometric	Geometry	the Greek word "geo" (earth) + "meters brand" (to measure)
Sinus	Sinus	of the genre, "flag" from the form
Tangens	Tangens	Latin "tegmoq" stem from

The analysis is used without problems in terms of scientific communication that results izomorf, we have optimised them to make almost does not require.

2. Allomorf terms. This kind of mathematical understanding expressed in the same terms, but when we look at transforming in two languages is completely different. Usually, having their roots in English are in the form of national, international terminology used while in the German language.

Nemischa	**English**	**Comment**
Winkel	Angle	Nemischa "twist" in the sense
Reihe	Series	Nemischa "number, number"
Fläche	Surface	Nemischa the "plains"area of the
Kreis	Girth	Nemischa "circle"
zah at	the number	Nemischa the "calculate" root

Although there is harmony in semantic terms such variations in the form of great. Therefore, we have optimized them in a glossary, additional joint translation or the use of the form is required. For example, *Winkel (the corner)* in the form of a parallel application can be recommended.

3. Izomorf partial terms. This international group of national terms and terminology include mixed forms. On the one hand they are taken from the international scientific language, on the other hand, side by side with the form of the national language is used.

Nemischa	**English**	**Comments**
Radius	Radius / Yarimdiametr	there are two options: international and national
Dreieck	Triangular	Nemischa "three" + "the corner

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Quadrat	Square / Rectangular	form, the form of the international and national side-by-side

This type can be posed difficulties in terms of the process of education because students are international and national at the same time to push the development of the form is required. For this reason, we have to launch the optimized izohli bring relief to support in the textbook.

The results of the survey showed the following important aspects: izomorf a big part of mathematical terms in German and English, in the form of an international scientific communication is easy to use. Allomorf terms reflects the richness of the national language, but it is necessary to adapt them to international cooperation. Yoqlama able to apply partial izomorf two terms, however the only option in the selection of scientific standardization is important. We have scientifically optimized ensure the accuracy of the translation of terms, it also increases the efficiency in the educational process.

Discussion. A comparative analysis of the results of the analysis, we have optimized the characters allomorf izomorf mathematical terms in German and English and plays an important role. The characters in terms of how effective uses of international scientific communication, it also determines how you approach requires that in the process of translation. **I**zomorf terms, for example, Logarithmus – logarifm, Sinus – sinus, Geometric – geometry, both from the aspect of form and content in two languages almost compatible. In particular, we have optimized the process of such terms do not have a problem, they are on their own with the combination of international standards is activated. In this regard, the scientific article, the use of terminology in translation izomorf enhances the global scientific and education in the process of integration. In the meantime, in the presence of the terminology of the international scientific terms in English izomorf technique ensure the integration into the arena, the content of English teaching in international mathematics and science are also full-fledged allows you to represent. We have optimized the process requires more attention in terms allomorf. For example, Winkel – corner, Fläche – surface Reihe – number terms like when we look at transforming not mutually compatible, though expressing the same concept, although there is appreciation. For the same reason: additional comments necessary to give in the translation process; it is recommended to use the parallel form in the textbook (*Winkel (the corner)* in the form of); along with the international terminology in the article international scientific terminology, while also the coming of the English to be clear scientificsocial increases. The richness of this condition, along with the terminology of the national language of uzbekistan, keep it into circulation, they are also necessary to adapt the international scientific opportunity.

Izomorf partial terms (*radius – radius/yarimdiametr*, *square – square/rectangular*, *Dreieck – triangular*) used in the educational process due to the two different forms, students can be posed in confusion. Therefore, in the textbook izohli application ("radius (yarimdiametr) in the form of" is recommended). Term this approach allows to maintain a balance between national and international terms. Mathematical analysis has shown that the terms in German and English, we have optimized the process can be done in two directions:

Adaptation to international standards – izomorf terms of the wider introduction, apply them in scientific works. National terms – the terms of allomorf did not disappear entirely, or parallel form izohli apply. Hence, we have optimized the storage of language in the process of the national park, along with international scientific cooperation can meet the requirements of both. The discussion of the results shows that the symptoms of mathematical terms and allomorf izomorf of not only theoretical but also practical aspects are also of great importance. Because:

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ensures the compatibility of terms in scientific articles translated into English from the German language; consistent use of terms in textbooks and manuals on the subject, readers will be enhance the knowledge;

international scholarly communication will help increase attention in scientific work, created in English. Thus, we have optimized mathematical terms in German and English and the effective organization of the process of izomorf allomorf signs may be taking.

Conclusion. The results of the survey of mathematical terminology in English and German formation, and showed the presence of characters in the development and support izomorf allomorf. This international scientific cooperation and the characters in terms of defining the national education system is one of the factors in how effective the main uses. First of all, izomorf terms (for example, *logarithmus – logarifm*, *parabel – parabola*, *geometric – geometry*) the form and content of the aspects from almost compatible. Stand out with such terms be widely applied in the international scientific arena. We have to make them smoothly through the night because it was optimized compatibility fonetik they soak into the national language. Therefore, the terms of izomorf to be used more widely to increase the quality of scientific translations, international attention to the scientific work produced in the language of the article will help you to focus. Secondly, allomorf terms (for example, *winkel – corner*, *reihe – series*, *fläche surface*) is different when we look at transforming, although the semantic aspect means the same mathematical concept. We have optimized the process together with the richness of such terms in national terminology retain, to harmonize with international standards is important. For this reason, the parallel application (*winkel (angle)*) or to give additional comments and scientific-pedagogical practice will give you effective results. Third, izomorf partial terms (e.g., *radius – radius/yarimdiametr*, *square – square/rectangular*) close to each other in two languages, but has some differences. Izohli way in the educational process in this group of terms used in the textbook in the form of international and national side-by-side we have come to the optimized efficiency increases. Research has shown that the process is optimized mathematical terms, we have two main important principle: the international standards, draw – it is necessary to integrate global research. The storage of national terminology – preservation necessary for that specific language. Scientific and practical significance the results of this research is demonstrated in the following: ensures the accuracy of terminology in translation between German and English scientific articles; it uses a single set of terms in mathematics textbooks and manuals puts; international scientific cooperation in the scientific attention increases the Uzbek language in relation to the work; and in the research terminology linguistically and creates the theoretical basis for the study of izomorf allomorf characters. Conclusion words in German and English and comparative mathematical terms, we have to make them and learn the signs of izomorf allomorf increases the effectiveness of the optimized scientific communication, the development of science in the future of mathematics and science at a global level and serves to further creates a place near the ground.

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