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ҒЫЛЫМИ-ӘДІСТЕМЕЛІК ЖУРНАЛ
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Жақсы жігіт сипаты бұл – іскерлік, адамгершілік, адалдық, әділдік, жайдары мінез, ұшқыр білім, ақыл-парасаттылықтың молдығы, еңбектің өнімділігі мен қажыр-қайрат.

Берекелі жұмыс істесе, қылыштай қайтпас қайсар болса, мінезі мен ақылы, өнері бір-біріне сай, шешен тілді, ақылды, сабырлы жігіт – серінің арманындағы өткір, асқақ жас жігіт. «Осындай асыл азамат қазақ халқының арасынан табылып, елді бастаса – бұл зор қуаныш, үлкен мәртебе болар еді», деген жастарға адамгершіл зор үміт артады.

«Тау тасты шабыт қылып» қазақ даласын әнмен күйге бөлеген ақиық ақын, сал-серілердің падишасы, елінің ардақтаған аяулы ұлы Ақан Қорамсаұлының ғажайып сырға толы өмірі, әсем де сазды әндері мен болашақ ұрпаққа деген өсиеті бұл баға жетпес байлығымыз, асыл мұрамыз. Ақанның асыл туындылары өскелең ұлттық мәдениетіміздің алтын қорына біржола еніп кетті.

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ЕРМАНОВА, С.Б.

«ЕСЛИ ПАРЕНЬ ДРАГОЦЕНЕН, КАК БРИЛЛИАНТ»

Жизнь Акана Корамсаулы, истинного поэта, царя коней, любимого сына страны, полная чудесных тайн, красивых и мелодичных песен и завет грядущим поколениям, является нашим бесценным достоянием и благородным достоянием.

Ключевые слова: «Ақан Сері , красавчик и соловей», «Ақан Сері – автор текстов, автор-исполнитель» , «Я кинжал в позолоченных ножнах».

ERMANOVA, S. B.

«IF A GUY IS AS PRECIOUS AS A DIAMOND»

The life of Akan Koramsaully, a true poet, king of horses, beloved son of the country, full of wonderful secrets, beautiful and melodious songs and testament to future generations, is our priceless and noble heritage.

Key words: «Akan Seri, handsome and nightingale», «Akan Seri – lyricist, singer-songwriter», «I am a dagger in a gilded scabbard».

UDC 5.51.7

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THE ROLE OF PROBLEMS IN MATHEMATICS AND GENERAL METHODS OF SOLVING

Abstract

The future competitive specialist, tomorrow's student, today's young generation studies at school. The main issue in teaching mathematics at school is the teacher's skill. In order to consciously and successfully use teaching methods, a

teacher must master the principles of teaching, cognitive methods, and the organization of lessons. The low level of preparation of future teachers for problem solving is due to the need for future mathematics teachers to develop students' problem-solving skills. Therefore, this article is intended for a theoretical study of the use of methods and methodologies of preparation of future mathematics teachers for the formation of school skills. In order to answer this question in the article, we reviewed the literature.

Key words: *school mathematics, mathematical problems, role and methods of problem-solving.*

1 Introduction

Mathematical education is part of the system of continuing education and is of great importance in ensuring the development of human intelligence in modern society. In secondary and high schools, mathematical problems are generally considered to be the only solution needed to master the theory, methods and concepts of mathematics. Problems play an important role in the development and education of students' thinking skills and in the formation of knowledge and skills of students about the application of mathematics in practice.

In the system of education, the teaching of mathematics has a special place in the development of students' cognitive abilities and logical thinking. The ultimate goal of teaching is for students to master the methods and techniques of solving a particular system of problems and to master the concepts and methods of school mathematics [1]. A well-organized method of teaching the solution of mathematical problems contributes to the development of students' thinking and mathematical culture, as well as the formation of skills and abilities to apply mathematics in practice.

Consider the question of the functions of tasks in teaching mathematics. The task has a variety of functions that at one time or another manifest themselves explicitly or covertly. Depending on the specific conditions of a particular stage of learning at which a given task is posed, one can speak of a leading function [2]. In general, in teaching mathematics, it is customary to distinguish three main functions: cognitive, developmental and didactic. All tasks of school textbooks are subject to the proposed classification. Tasks with didactic functions, which are the majority in the school course, are offered mainly to consolidate theoretical positions. They are most important in the formation of abstract concepts, to reveal the essential links between different concepts.

2 Materials and methods

The general theoretical method was used in writing this article. During the writing of the article were used a brief analysis of the content of textbooks "Mathematics" on the state educational program and a theoretical review of previous works on the methods of teaching mathematics. Priority was given to methods and ways of solving mathematical problems

3-4 Results and discussion

Considering all the factors of importance of solving problems in mathematics will lead to the fact that with the right solution of mathematical problems, it is possible to form a high level of mathematical knowledge, skills and abilities through new methods of teaching. Mathematical problems are used: a) to teach new mathematical concepts and information; b) formation of practical skills and abilities; c) check the depth and narrative of knowledge; d) to develop the creative abilities of students [3]. In the learning process, the report equips students with new mathematical knowledge and helps to systematize and refine existing knowledge and skills.

By solving mathematical problems, students learn many mathematical concepts, know mathematical symbols, and learn how to prove. Problem-based learning teaches the development of logical thinking, clarity of thought, accuracy of thinking, the ability to use symbols and memory. The report equips students with new mathematical knowledge and helps to systematize and refine existing knowledge and skills.

Teaching to solve mathematical problems and further mastering them is the main, responsible work facing teachers. Each student's attentiveness and attention to mathematics can be formed by solving various problems. Since problem-solving is often taught in the classroom, all students need to be equipped with common problem-solving techniques. To do this, it is necessary to manage their activities in the reporting process and work with a certain system. Students' achievement in learning mathematics is assessed by how well they are prepared to solve the problem. The meaning of mathematical concepts is clearly revealed and clarified during the report. Now let's look at the types of problem-solving training:

1. *Mass solution of the problem.* Mass problem solving means that all students solve one problem at the same time. There are many ways to organize a mass solution:

a) Oral problem solving is common in grades 4-7. Such problems mainly include calculations that can be performed quickly orally, balanced conversions, and other exercises. By solving the problem orally, the student is able to quickly calculate mentally, develop thinking skills. Using different tables, reference and visual aids in solving the problem orally will help students save time and make the lesson more active.

b) Solve the problem in writing. All students solve the problem on the board at the same time. Here either the student or the teacher decides, or on the teacher's instructions:

- 1) After presenting a new concept or a new method, makes a report on the board;
- 2) Inability of all students to make independent reports;
- 3) When it is necessary to solve one problem in several ways and choose the most effective ones;
- 4) Analysis of errors in solving problems on the board. A comprehensive analysis of these cases is useful.

2. *Write and solve the problem independently.* Students think creatively by solving the problem in writing. Independently analyzes and uses various theoretical materials as needed [4]. There are many benefits of independent decision-making:

- 1) The activity of learning increases, the interested creative initiative is established, the activity of thinking develops.
- 2) The student is forced to think for himself without copying from the board, is forced to prepare for the lesson and evaluates their knowledge when deciding on their own.
- 3) The teacher allows eliminating mistakes in the work of each student.
- 4) The student independently reads and recalls the necessary theoretical material to solve the problem, analyzes the model of solving the problem told by the teacher with a similar problem, and then the student solves a similar problem individually.

5) Explain the solution of mathematical problems. Students in the class explain the solution of the problem from beginning to end. The student explains why he changed the operations he performed, the reason for the transformation, his other thoughts, and what the solution of the problem is based on. It should be noted that each line of the problem is based on a well-known mathematical theory. In this case, the teacher's job is to explain how to solve the problem, to organize the solution of problems according to the abilities of each student in the class. It is the task of every teacher to further develop the independence of students by developing their own problem-solving. Therefore, it is necessary to give the necessary instructions to students and show the relevant topics in the textbook, reference material. Homework is especially important in the formation of self-problem solving skills. The main purpose of homework is to further develop students' mathematical knowledge, skills and abilities, as well as to review and review the theoretical material passed in the classroom at home. Therefore, when giving homework, the teacher should give advice and guidance on the difficulties encountered in solving the problem.

3) *Summarizing the solution of the problem.* Summarizing the solution of the problem includes a discussion of the content and methods of solving the problem, choosing the most effective of them, formulating and solving a new problem arising from the problem, the facts that can serve as a model for the solution of the problem. By solving a variety of problems, it is

necessary to indicate what methods should be used to determine the situation in which the solution is found, and what features of the solution allow you to choose the most effective methods. Regular collection, systematization and regular use of exemplary conclusions in the teaching process are an effective tool for strengthening the search skills of students, the activation of creative activity.

5 Conclusions

At present, the main task of schools and teachers is to educate competitive students who are the future of our country. Mathematics is one of the core subjects, and mathematical problems are the key to the formation of the concept of mathematics. Therefore, the teaching of mathematics requires more attention in teaching. This article introduced the 3 most basic methods for solving problems and modern teaching methodology is based on these basic methods. As well as the presented methods for solving mathematical problems is the base and an effective way of all time.

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ХАНЖАРОВА, Б.С., АМАНҚҰЛОВА, Л.Н.

МАТЕМАТИКАДАҒЫ ЕСЕПТЕРДІҢ РӨЛІ ЖӘНЕ ЖАЛПЫ ШЕШУ ӘДІСТЕРІ

Бүгінгі таңдағы мектеп оқушылары - ертеңгі студент және болашақтағы бәсекеге қабілетті маман. Мектепте математиканы оқытудағы басты мәселе – мұғалімнің шеберлігі. Оқыту әдістерін саналы және табысты қолдану үшін мұғалім оқытудың принциптерін, танымдық әдістерді, сабақты ұйымдастыруды меңгеруі керек. Болашақ мұғалімдердің есеп шығаруға дайындық деңгейінің төмендігі болашақ математика мұғалімдерінің оқушылардың есеп шығару дағдыларын қалыптастыру қажеттілігінен туындайды. Сондықтан бұл мақала болашақ математика мұғалімдерінің мектеп дағдыларын қалыптастыруға дайындаудың әдістемелері мен әдістерін қолдануды теориялық тұрғыдан зерттеуге арналған. Мақалада бұл сұраққа жауап беру үшін біз әдебиеттерді қарастырдық.

***Кілт сөздер:** мектеп математикасы, математикалық есептер, есептерді шешудің рөлі мен әдістері.*

ХАНЖАРОВА, Б.С., АМАНҚҰЛОВА, Л.Н.

РОЛЬ ЗАДАЧ В МАТЕМАТИКЕ И ОБЩИЕ МЕТОДЫ РЕШЕНИЯ

В школе учится будущий конкурентоспособный специалист, завтрашний студент, сегодняшнее молодое поколение. Главным вопросом в обучении математике в школе является мастерство учителя. Для того чтобы сознательно и успешно использовать методы обучения, учитель должен овладеть принципами обучения, познавательными методами, организацией уроков. Низкий уровень подготовки будущих учителей к решению задач обусловлен потребностью будущих учителей математики в формировании у учащихся навыков решения задач. Поэтому данная статья предназначена для теоретического изучения использования методов и методик подготовки будущих учителей математики к формированию школьных умений. Для того, чтобы ответить на этот вопрос в статье, мы провели обзор литературы.

***Ключевые слова:** школьная математика, математические задачи, роль и методы решения задач.*