

## QUALITIES REQUIRED FOR COMPOSING AND SOLVING EQUATIONS IN MATHEMATICS IN PRIMARY CLASS STUDENTS

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**Abstract:** In this article, students of the primary grade learn basic information about equations, connect arithmetic operations with equations and create an equation, and at the same time, mathematical reasoning is given, and opinions about the development and formation of knowledge and skills about equations given.

**Keywords:** equations, arithmetic operations, simple and complex concepts about equations, reasoning, mathematical culture, educational standard

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Today, in a rapidly changing environment, both the activities and their scope are growing in every field. Especially our current age is the age of information - communication, modern techniques and technologies. We know that accurate calculations are the basis of any development. This, in turn, increases the demand for the science of mathematics and its study, development, and effective use of its achievements. Based on these requirements, attention to this field is increasing day by day throughout the world, including in our country. Today, forming and developing the system of mathematical knowledge and skills necessary for students to form calculation skills, apply them in daily activities, learn subjects and continue their education is essential in primary education. It is one of the main tasks of mathematics teachers in the school. Therefore, this article is devoted to the methods of creating and solving an equation in mathematics for elementary school students. Honorable President Sh.M. As Mirziyoyev noted: "Mathematics is the basis of all exact sciences. A child who knows this subject well will grow up to be intelligent, broad-minded, and work successfully in any field." In fact, these sentences have a wide meaning.

To implement the requirements of the state standard of primary education, it is an urgent issue to develop the methodology of teaching mathematics in primary grades, including the methods of developing the teaching of equations. The purpose of this article is to develop the content, form and methods of increasing the effectiveness of the lesson on the methods of teaching equations in the teaching of mathematics in elementary grades, and to study its entire system. Today, knowing, teaching and learning mathematics, which is the key to all sciences, is the main

foundation for the effectiveness of knowledge. Solving problems, first of all, forming perfect mathematical concepts, is extremely important in their mastery of the theoretical knowledge specified in the program. For example, if we want to develop a correct understanding of addition in students, for this, children should solve a sufficient number of simple problems of finding sums almost always by combining sets.

Simple and complex problems studied in primary grades serve to strengthen students' knowledge. Solving text problems is very important in teaching mathematics in primary grades. In the process of solving textual problems, students acquire new mathematical knowledge and develop skills and abilities to use this knowledge in life. Working on the issue begins with mastering its content. In the early days when the students do not have reading skills, they should learn to listen to the text of the problem read by the teacher, to distinguish the important elements of the condition out loud. In expressive reading of the problem, numerical data is important for solving the problem. Mathematics is taught as a basic subject in primary grades. In the elementary grades, students master math operations such as addition, subtraction, multiplication, and division. Mathematics taught in primary grades is a component of secondary school mathematics. Elementary mathematics consists of the arithmetic of natural numbers and basic quantities. In elementary mathematics, in addition to the teaching tasks of several major subjects, teaching the concept of equations is also important. The concept of an equation is used not only in elementary grades, but this concept is the main concept studied in mathematics.

**To date, the following 3 types of problems are being taught to primary school students:**

- the first, simple problems - such problems are short, solved by performing one action, understandable for students.

Simple problems with one operation serve to form elementary concepts of equations in elementary school students. Working more with equations that are worked with this method will help elementary school students to form the qualities of quickness required in solving problems. Simple problems with one action are used more in primary classes, especially in 1st grades. Because 1st graders do not yet understand the issues that are dealt with in complex ways. Therefore, in the process of teaching problems and other mathematical examples in primary classes, it is necessary to explain from simple operations to complex operations.

For example, let the following problem be given:

Nargiza had 20 apples. He gave some apples to his brother. After that, Nargiza had 13 apples left. How many apples did Nargiza give to her brother?

Solution:  $20-x=13$     $x=20-13$     $x=7$

Here, the equation is created and the problem is worked out.

- the second is complex problems - problems that require several interrelated actions to be solved.

Complex issues are issues that involve two or more actions. Working on such problems will help elementary school students to get deeper into the world of equations. In the process of solving complex problems, students are able to apply the knowledge they have acquired in mathematics, develop intellectually, and develop deep thinking qualities. Including working on such issues encourages the student to work on himself more.

For example, let the following problem be given:

The first box contains 6 pencils. The second box has 5 more pencils than the 1st box and the third box has 2 less pencils than the 2nd box. How many pencils are there in all three boxes?

Solution:  $6+(6+5)+(6+5-2)=6+11+(11-2)=17+9=26$

- thirdly, logical questions are questions that develop students' ability to think and encourage them to make logical judgments.

Working on such problems is the best way to sharpen students' minds. Logical problems also improve the process of exchanging ideas with each other and encourage more parents and teachers to work more with the child. Because it is the duty of every teacher to explain to the student the working process of this type of issues and to make sure that he understands them perfectly. Working more of these types of problems will greatly help the formation of students' ability to make independent decisions and easily get out of any problem situations, as well as the growth of logical thinking skills.

For example, let the following problem be given:

His mother ordered Salim to bring 4 liters of water. But his mother gave him only two containers, one of which was 3 liters and the other was 5 liters. Can Salim measure 4 liters of water using these containers?

Solution: First he takes 3 liters of water and puts this water in a 5 liter container. Then he fills another 3-liter container with water and puts it in another 5-liter container. Then the 5-liter container is full, leaving 1 liter of water in the 3-liter container. Now he empties the full 5-liter container and pours the remaining 1-liter water from the 3-liter container into the 5-liter container. Now he fills another 3-liter container and puts it in a 5-liter container. As a result, the previous 1 liter of water is added to the current 3 liters to make 4 liters of water.

Today we will focus on the role and importance of complex problems in the development of mathematical understanding and thinking of students of junior school age. Solving complex problems is one of the subjects that is a bit difficult for elementary school students to learn. Because the process of transitioning from

simple to complex problems of young students is based on their thinking skills. While most children find these issues easy, many students find it difficult. It is more appropriate to work with such students by organizing extracurricular clubs. Because if extracurricular activities are not carried out with students who are more difficult to master, they will lag far behind their peers, and their interest in this subject will die day by day. As a result, the student will completely move away from mathematics and in the future will blame the elementary school teacher for this process. That is why it is necessary to work more with students with slow learning from the beginning, and he will also be a mature mathematician in the future. It is necessary to convince that it can become. I think this is the duty of every elementary school teacher. Of course, the parents of those students should also help in this process. Because the child spends most of his time at home than at school. You should never leave a child free time, parents should also be more involved with their child. Every child should know mathematics as well as possible. Because mathematics is needed in any field and is very useful in life.

There are 2 types of equations: Simple and complex.

It is known that tengams are taught from the 2nd grade. The reason is that by the 2nd grade, students will be familiar with 4 arithmetic operations. After studying all arithmetic operations, we can describe the methods of solving simple equations as follows, using the point of view that each arithmetic operation has 2 terms and 1 result, as we noted above. Concepts of equalities, inequalities, and equations are revealed in interconnections. The work on them is carried out in conjunction with the study of arithmetic material from the 1st grades. The initial stage of developing the concepts of equality and inequality is to teach the relations of comparison of sets of things according to their quantity (larger, smaller, equal). In the 1st-2nd grades, basic ideas about numerical equations and inequalities are formed. Children get their first ideas about equality and inequality in the preparatory period. In the 3rd grade, in addition to repeating the topics of the 1st and 2nd grades, you can also discuss more complex cases with the students. The minds of 3-4th graders are thinking according to the minds of 1st-2nd graders

according to the breadth of its scope, it requires the teaching of complex equations and inequalities. It can be scientifically hypothesized that if in elementary school mathematics lessons, equations and inequalities are solved in different ways and their solutions are discussed and explained, then the quality indicator of performing mathematical calculations related to the equation will be high. It teaches students to think and think in turn. Students can independently solve equations correctly. An elementary mathematics course does not provide a clear definition of the concept of "Equation". Students will understand this concept during specially selected exercises. It can be said that the goal of the lesson has

been achieved if the students are thinking about complex things. Students learn to perform four undefined operations on natural numbers in primary grades. Then students are taught to find the component involved in addition, subtraction, multiplication, and division. It is taught to find the unknown from these components to be found.

In particular, by solving problems, we should pay attention to their educational value. Issues serve the development of nature and society. The location of factories and factories under construction, the volume of production, the amount of consumption of products, the agricultural products being grown and their realization, the dimensions of the structures being built, the cultivated area of technical crops, the productivity, the amount of products, and the calculation of their expenses all related to mathematical problems. Such issues serve the development of society. To protect the purity and innocence of nature, the cleanliness of the environment, the clarity of drinking water, to protect plants and animals from disappearing from the earth, not to waste fossil resources, to increase cultural and decorative trees. All the activities are related to mathematical problems. Such issues serve the development of nature. Pupils should be able to distinguish these by themselves. Solving problems in mathematics classes plays an important role in the formation of the scientific and creative outlook of students. Thus, by solving equations of various mathematical problems, the skills of applying mathematical laws in practice are formed in students, and mathematical thinking develops somewhat.

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