

An Innovative Approach to Performing Assignments on Shares and Fractions

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Annotation: This article introduces primary school students to some fractional problems, types of fractional problems, and ways to solve fractional problems. Furthermore, creating a system for teaching the concept of share and fraction and explaining the usage of that system in the subject of mathematics in primary school.

Keywords: Mathematics, share and fraction, innovative method, fraction, pedagogical technology, simple fraction, primary school, half, quarter, computer, problem, cut.

Education of the citizens of our country is guaranteed by the Constitution of the Republic of Uzbekistan. Education plays an important role in educating the youth of the Republic of Uzbekistan. Just as the homeland begins at the threshold, the education of our children begins at family. This means that each of us is responsible for the development of our future generation in all respects mature, healthy, educated and loyal to their homeland.

In January 2020 President Shavkat Mirziyoyev in his Address to the Oliy Majlis said that several priority areas of science would be developed every year. Mathematics has been identified as one of them in each year. It has made both our people and the scientific community very happy. Because, mathematics has a deep historical basis in our country and it is very important for development today.

The Institute of Mathematics of the Academy of Sciences plays an important role in the development of this direction in our country. Founded in 1943, it has become one of the major centers of mathematical research in the past. The scientific schools of algebra and functional analysis, differential equations, probability theory, and mathematical statistics formed here have been recognized by world scientists.

On July 9, 2019, the President of the Republic of Uzbekistan signed a decree "On state support for the further development of mathematics education and science, as well as measures to radically improve the activities of the Institute of Mathematics named after V.I.Romanovskiy of the Academy of Sciences of the Republic of Uzbekistan." was adopted.

"Mathematics cannot be developed rapidly with yesterday's teaching methods," he said. Therefore, it is necessary to retrain teachers by first creating educational programs based on foreign methods that have given good results in practice. The method should be such that it inspires children to love mathematics. To do this, students need to understand that science is needed in life, in every field. Young people should study to become educated professionals, not to pass exams, "said the President.

An elementary math course helps children develop thinking skills. Primary knowledge creates a single set, focused on the formation of the necessary methodological concepts and logical structures of thinking. Primary educational tasks in mathematics can be solved only on the basis of a system of theoretical knowledge. The ability to apply the most effective methods for a particular area of study, which is influenced by the specific content of teaching and the mental activity of

teachers, should address specific methodological tasks that arise in preparation for the lesson or in the lesson itself. It is important for the primary school teacher to know and take into account the level and capacity of the students' mental activity as it lays the foundation for the intellectual development of the students in the primary grades. The use of new pedagogical technologies using teacher demonstrations and visual aids is very important in the teaching process.

Among the topics that require the development of innovative approaches and a system of creative assignments in elementary mathematics lessons, we can include the concepts of share and fraction. It is necessary to develop a special methodological system, as well as a creative and innovative approach to better convey the content of these issues to students. The Grade 3 curriculum for four-year elementary schools addresses the problem of finding the fraction of a number and the number itself by proportion. In Grade 4, however, the problem of finding several fractions of a number is solved. Before conveying these concepts to students, the most pressing issue is what the share and fraction are, and how to develop students' ability to differentiate between them.

A share is a piece of an object divided into equal parts.

A fraction is several shares of an object divided into equal parts.

In the process of learning the subject of shares, students gain knowledge about the fraction of a number, finding a number by a fraction, and turn it into a skill. It is advisable to use strong methodological potential, creative assignments and innovative technologies to easily convey to students the issues of share and fraction given in the textbook.

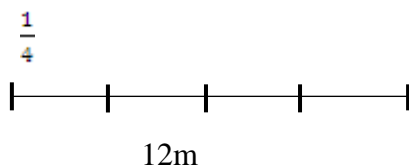
Starting in Grade 2 students will be introduced to the topics of "The fraction of a number" and "Describing the fraction of a number using words or numbers." In the 2nd grade textbook, assignments were given for 7 shares and 31 fractions. Here are some of the problems covered in the textbook.

Problem. Aziza cut part of $\frac{1}{4}$ from 12 metres of cloth for sewing dress. How many metres of cloth did Aziza cut for 1 dress?

Solution. $12:4=3$ (metres)

Answer. Aziza cut 3 metres of cloth for one dress.

It is appropriate to use cut in explaining this problem.



Taking a piece of tape from a computer, marking it as 12 m and dividing it into 4 parts, and asking how many meters one part is, also gives a quick idea of the problem.

In preparation for solving such a problem, the student should first be given a ribbon or ribbon and told to fold it into 4 equal parts. When this strip is 12 m, it is necessary to ask how many meters there are 1 piece with 4 bends.

Problem. The length of the rope is 18metres. A 3 metres long piece was cut from this rope. What part of the rope does the cut piece form?

Solution. $18: 3 = 6$ is a fraction.

Answer. The cut piece of rope is $\frac{1}{6}$ part of the whole rope.

In this case, too, we represent the rope with a cut. Let's mark it as 18 meters and divide it into pieces of 3 meters. We ask students how many pieces were formed.

In Grade 2, students learn to describe the percentage of a number, a quarter, or a quarter of a number using words or numbers. They consolidate their knowledge by studying assignments on the topic.

In Grade 3, students are taught simple fractions and simple decimals. In explaining simple fractions to the student, the student must have a deep understanding of the meaning of fractions in order to master his writing and reading. The reader should have a clear idea of the image of the fraction, the denominator of the fraction, the line of the fraction.

The number above the small line is called the numerator or top number and the number below the small line is called denominator or bottom number. $\frac{4-\text{NUMERATOR}}{5-\text{DENOMINATOR}}$

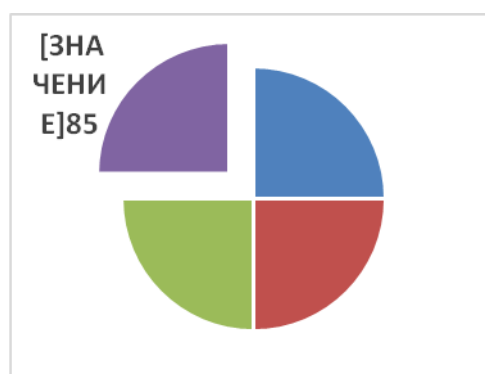
It is precisely in the formation of the concepts of share and fraction that animated images and animations play an important role in broadening students' imaginations. Because the topic is a bit complex, it takes a long time to explain it to all students at the same time. Through multimedia, presentations, and various exhibitions, students both gain insight into the topic and have the opportunity to save time during the lesson, meaning that less time is spent explaining the topic and students mastering the topic. Students themselves will be able to see the shapes of fractions and fractions in color on the screen, the ability to see its properties with the help of examples will increase, and visualization will be provided. In this way, during the explanation of the lessons, students' interest in science increases and the effectiveness of the lesson is achieved, which means the fulfillment of the tasks set out in the National Training Program and the achievement of its goals.

Here are some of the problem in the 3rd grade textbook.

Problem. 185 roses were cut in the greenhouse. This is a quarter of the order. How many roses should be cut to order?

Solution. $185 * 4 = 740$ (pieces) of roses.

Answer. 740 roses should be cut to order.



We can use a diagram to explain this problem.

The diagram clearly shows what to find. The student understands the condition of the problem and how to solve it by looking at the drawing.

The use of innovative technologies in primary school mathematics lessons, the explanation of problems in the textbook in a non-traditional way increases the quality of education. Students' imagination expands and their interest in mathematics grows. Innovative technologies and creative tasks expand the teacher's ability to take students into an interesting world, where students independently search, receive, analyze and communicate information to others.

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