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# Problems of Finding Two or More Numbers from their Sum (Or Difference) and Multiple Ratios

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**Annotation:** This paper analyzes examples of complex arithmetic tasks, problems of finding two or more numbers of the same type of typical arithmetic tasks from their sum (or difference) and multiple ratios.

**Keywords:** matter, arithmetical task, arithmetical action, example, task.

## Introduction

All arithmetic problems are divided into simple and complex problems, depending on the number of operations performed to solve them. A problem that requires a single arithmetic operation to solve is called a simple problem. A complex problem is one that requires several interrelated actions (whether they are the same or different) to be solved. However, in the elementary mathematics course, such problems are encountered, and complex problems with some important features are considered typical arithmetic problems in the methodology course.

A distinctive feature of typical problems is that they are much more difficult than non-typical problems and require the use of special methods of thinking to solve them.

The concept of a typical arithmetic problem is reflected in many literature on arithmetic, their specific features, the problem of working on typical arithmetic problems studied in the course of elementary mathematics has not yet been fully resolved. . Therefore, in this article we have decided to address the above issues..

## Materials and Methods

This type of problem can be solved by elementary school students with interest. We consider the following issue.

Problem: Nadir and Talib picked 24 mushrooms. The number of rare mushrooms is twice the number of mushrooms collected by Talib. How many mushrooms did Nadir sweat? How many mushrooms did Talib pick?

To make this problem clear, let's first give a graphical model that represents a brief condition of the problem. Since the number of rare mushrooms is 2 times more than Talib, we express the number of mushrooms picked by Talib with an "a" cut. Since the number of rare mushrooms is 2 times longer, we denote the section 2 times longer than "a" by "b". They are both

Determine the number representing 24 mushroom pickers.

We solve the problem by discussing with students as follows.

- Do you know how many mushrooms Nodir picked?

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- No.
- How many mushrooms does Talib pick?
- No, it is not known.
- "How many mushrooms did they pick?"
- Yes. 24 ta
- Who picked a lot of mushrooms?
- Rare.
- How many times did you pick mushrooms from Nadir Talib?
- 2 times.

"How many mushrooms did Nadir or Talib pick?" The question leads students to misjudge.

Some students think for themselves and divide 24 by 2 to find the number of mushrooms that Talib picked. This error leads to a solution.

Involving the students in the correct thinking, the teacher said from the graphic model, “If we take the number of mushrooms picked as 1 part (share), the number of rare picked mushrooms is 2 times more than the number picked by 2 will be a contribution. ” Then students will know how many parts (parts) of 24 picked mushrooms.

1 + 2 = 3 (part)

- Now, can you find the number of mushrooms that Tolib collected?
- Yes.
- "How?"
- 24 divided by 3. 24: 3 = 8
- Who picked 8 mushrooms?
- Tolib.
- How many mushrooms can Nadir pick?
- Yes, multiplying 8 by 2 8 • 2 = 16 (pieces)

The teacher tells them that they have solved the problem correctly. Then the students check the problem.

8 + 16 = 24 (pieces) or 16: 8 = 2 (times) these solutions indicate that the problem was solved correctly.

Now let's look at introducing students to the problem of finding two numbers according to their difference and multiplication.

Problem: Geese in the pasture are 3 times less than ducks. If there are 14 more ducks than geese, how many geese and how many ducks are there in the meadow?

This problem represents a system of two unknown linear equations (where a is the number of ducks in the pasture and b is the number of geese).

This problem can be solved by discussing with primary school students as follows:

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- What are the students talking about?
- About geese and ducks in the pasture
- Is it known how many times geese in the pasture are less than ducks?
- Yes, 3 times

"What else is given?"

- It is known that ducks in the pasture are more numerous than geese.
- What does the issue require us to find?
- How many geese and ducks are there in the pasture?

To find a solution to a problem, we first create a graphical condition (model) representing the problem condition.

Since geese are 3 times smaller than ducks, we choose 1 section that represents the number of geese. The section that represents the number of ducks is 3 times longer than the number of geese, so this section is 3 times longer than the first section. Since ducks are 14 more than geese, we denote 2 out of 3 separate sections, which represent the number of ducks, and denote it by 14.

Looking at this graphical model, we will continue to observe. As we can see from the diagram, 14 of these represent two of the cross-sections representing the number of geese. So you can divide 14 by 2 to find the number of geese. When the number of geese is known, the number of ducks is found. The problem is solved with 3 cases. (by division, division and multiplication)

Solution: 1) 3 - 1 = 2 (part)

2) 14: 2 = 7

3) 7 • 3 = 21

Answer: 7 geese, 21 ducks.

To check the correctness of the problem, subtract 21 from 7.

21-7 = 14

**Discusssions and Results**

The peculiarities of the problem "Finding two numbers by their sum (or difference) and multiplicity" are as follows:

- The problem is the sum (or difference) of two numbers or quantities and their multiple, it is necessary to find the number or quantity itself.
- In order to clarify the text of the problem and find a solution, a graphical condition (problem model) is created.

In creating a graphical condition, the smallest number or quantity was selected as a part (contribution) and conditionally determined by a cross section of a certain length. From the text of the problem, the length of the second section is determined by the number of times the second number or quantity is multiplied by the ratio.

- There are two or more unknown numbers or quantities involved.

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- The solution of the problem begins with the calculation of the number of equal parts. If the text of the problem gives the sum and multiplication of two numbers or quantities, the number of parts is added. If the text of the problem gives the difference and multiple ratio of two numbers or quantities, the number of parts is divided.
- The problem will always have a unique solution.
- There may be other types of issues in the case.

Recommending the following questions to primary school students to help them solve them independently will help them develop independent thinking skills.

Issue 1. Together, the two comrades picked 32 walnuts. If the first one picked 3 times more nuts than the second one, how many nuts did each child pick?

Issue 2. The number of problems solved by Zoir is 4 times more than the number of problems solved by Zarif. If Zarif and Zoir solved 40 problems together, how many problems did Zoir solve?

Issue 3. There are 24 pens in two boxes. The pencils in the first box are 5 times smaller than in the second box. How many pencils are in the first box?

Issue 4. For Christmas, 3-A class students made 4 times more toys than 2-B class students. If the number of toys made by 2-B students is 18 less than the number of toys made by 3-A students, how many toys did the 3-A students make?

There are so many types of problems in textbooks that it's hard to say. Dividing complex problems into certain parts (types) and searching for a solution to the problem by performing the part of each type separately gives good results. We consider the following issue.

Issue: 3 tracks of steel weighing 950 tons were delivered to the warehouse. The weight of the iron in the first track was 3 times more than the weight of the iron in the second track and 5 times less than in the third track. The amount of flat iron imported on the third track was 75 tons less than the amount of round iron and 165 tons less than the amount of flat iron. How many tons of flat iron are on the third line?

This issue consists of 2 parts (types). First, let's solve the part that belongs to type 3. In this case, we conditionally define the weight of the iron given in line 2 as a unit cross section:

Solution: We interpret the solution one step at a time.

1) 1 + 3 + 15 = 19 (part)

2) 950: 19 = 50 (t) -2 track rails.

3) 50 • 15 = 750 (t) -3 track rails.

Now we will solve the second part of the problem, the part related to type 2.

We also provide a separate graphic condition for this section.

Since the question of how many tons of flat iron was brought, it is expedient to solve the problem by equalizing the amount of round and edged iron to the amount of flat iron.

4) 750 + 165-75 = 840 (t)

5) 840: 3 = 280 (t) flat iron.

Answer: 280 (tons) of flat iron are given.

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## Conclusion

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## References

1. M.Jumayev va boshqalar. “Matematika o’qitish metodikasi” Darslik . T.2018
2. Sh.Rayxonov, F. Qosimov, M.Qosimova “Boshlang’ich sinflarda tipik arifmetik masalalar yechishga o’rgatish”, 2017.
3. M.Qosimova K. Karimova “PROBLEMS OF FINDING THE SUM COR DIFFERENCEJ OF TMO NUMBERS AND THEIR” Актуалные вопросы современной науки и образования.
4. M.Qosimova . A. Qosimov “ On some typical problems to be solved in primary schools” An International Multidisciplinary Research Journal January 2021
5. F.Qosimov, A.Qosimov, M.Qosimova “” To develop students’, skills of nature conservation and respect for human labor by tefching them to solve environmental problems” Asian Journal of multidisciplinary Research (AJMR), Januariry 2021
6. Qosimov, Fayzullo Muxammadovich, and Mavluda Muxammadovna Qosimova. "IKKI (YOKI BIR NECHA) SONNI ULARNING YIGINDISI VA AYIRMASIGA KORA TOPISHGA DOIR MASALALAR." *Scientific progress* 2.6 (2021): 1138-1145.
7. Kasimov, Firdavs Fayzullo O’G’Li. "MASALANI MUHOKAMA QILIB YECHISH ORQALI O’QUVCHILARDA XULOSA CHIQARISH KO’NIKMASINI SHAKLLANTIRISH." *Scientific progress* 2.7 (2021): 1038-1047.
8. Kasimova, Mavluda Mukhammedovna, and Kamola Karimova. "PROBLEMS OF FINDING THE SUM (OR DIFFERENCE) OF TWO NUMBERS AND THEIR RATIO." *АКТУАЛЬНЫЕ ВОПРОСЫ СОВРЕМЕННОЙ НАУКИ И ОБРАЗОВАНИЯ*. 2021.