



DEVELOPING SCHOOL STUDENTS' LOGICAL THINKING THROUGH TEACHING TO SOLV GEOMETRIC PROBLEMS

Dinora Sobirova

Ajiniasis NDPI Physics named after and Mathematics faculty student

<https://doi.org/10.5281/zenodo.15123446>

Abstract: This article geometric issues solution through school of students logical his/her thinking development importance seeing Geometry issues logical thinking and analytical abilities to increase help gives, students problem solution in doing approaches working to go out encourages. Geometric solutions education in the process mathematician thinking shaping, in students systematic thinking and logical analysis to do skills develops.

Keywords: Geometric issues, logical thought, school students, thinking development, problem solution to do, analytical thinking, mathematics thinking, education methods.

Аннотация: В этой статье решение геометрических задач через школу учащихся логическое его/ее мышление развитие важности видения Геометрические задачи логическое мышление и аналитические способности для увеличения помощи дает, решение проблем учащихся в выполнении подходов, работающих, чтобы выйти, поощряет. Образование в области геометрических решений в процессе формирования математического мышления, у учащихся развиваются системное мышление и логический анализ, чтобы делать навыки.

Ключевые слова: Геометрические задачи, логическое мышление, школьники, развитие мышления, решение проблем, чтобы сделать, аналитическое мышление, математическое мышление, методы обучения.

Mathematics, human his/her thinking in development important place catchy scientific industry to be, to be inside geometry separately importance has if we say We will not be mistaken. Geometric issues not only to the students shapes, sizes and to them related laws explains, maybe logical thought and analytical thinking in development also effective tool Geometry through the students issues systematic in a way to solve, to solve decisions to release and wide comprehensive to think to teach possible. Uzbek education in the system mathematics, especially geometric to issues separately attention This is given. issues the students only numbers with to work teach not, maybe they own thoughts further clear and logical to express, to solve the problem in solution various approaches to apply teaches. Geometric issues in solution logical of thought learning, students systematic thinking, analysis to do and decision acceptance to do develops.. This in the article geometric issues solution through school of the students logical his/her thinking develop methods seeing Geometric of issues solution not only mathematician knowledge forms, but in students analytical and logical thinking strengthens. Uzbek mathematician from literature cited examples using this the process how done increase possibility about idea is maintained.

Geometric issues solution through school of students logical his/her thinking development, mathematics in education important place Geometry, mathematics thinking formation and to students analytical approach in teaching effective tool is considered. Through this science students issues solution in the process correct decisions acceptance to

do, thoughts logical in a way to express and to issues systematic approach They learn. Geometric issues and not only students own knowledge practical in a way to apply, maybe in them mathematician thinking to develop help gives.

Geometric issues and logical thought

Geometric issues students of thinking various to the stages take For example, a simple of a rectangle the surface calculation or complicated triangle perimeter find for student first of all issue understand, then to him/her correct approach choice This process is necessary. the student every one step logical in a way to think encourages. Uzbek mathematician in literature geometric issues and logical of thought mutual connection many examples through illuminated. Geometry science to students not only mathematician knowledge, but logical also developing thinking tool as usage important. Bahrom Sodiqov's book " Mathematics 7th grade" geometric of issues solution not only mathematician knowledge to master, but logical thinking to develop help to give This book is aimed at to students geometric shapes imagination to do, they between connections determination and issues various approaches through solution to do shown. Example for, simple geometry formulas correct application students systematic to think teaches. **Mirzayev, F.** own in his work geometric of forms main features and issues solution processes teaches. **Jumaev, M.** and mathematician in education logical thinking to develop separately attention gives, students problem solution in doing various approaches to use help Abduvokhidov, A. in his work and, geometric issues in solution effective methods presented to the students issues various methods with solution to do teaches. This in a geometric way issues to students not only clear knowledge, but they between connections and systematic approach to understand help This process, in students, mathematician thinking to develop, logical analysis to do and analytical thinking to strengthen help This gives its own In turn, the students wide comprehensive and systematic thinking skills develops.

Problem solving and analytical thinking

Geometric issues in students problem solution to do skills For example, the rectangle perimeter and the surface calculation in the process student formulas to apply learns, but this with together issue how as logical in a way solution to do understands. This issue is for the reader mathematician thinking develops, because it is the solution to the problem for correct approach find for logical idea runs.

Example:1

A rectangle length 8 cm, width and 5 cm. Its the surface and perimeter Calculate.
Solution:

Surface formula: $S = a * b$

$$S = 8 \text{ sm} * 5 \text{ sm} = 40 \text{ sm}^2$$

Perimeter formula: $P = 2 * (a + b)$

$$P = 2 * (a + b) = 2 * (8 + 5) = 2 * 13 = 26 \text{ sm}$$

Answer : $S = 40 \text{ sm}^2; P = 26 \text{ sm}$

This issue is up to the reader. mathematician thinking and issue logical approach with to solve teaches. Geometric issues also to students analytical thinking to develop help gives. The reader every one issue in solution only mathematician formulas with not, maybe imagination to do and they between dependencies determination through This process works. in the student logical thinking shapes.

Example:2

A triangle base The length is 12 cm, the height is 8 cm. The triangle Find the surface area. **Solution :**

of a triangle is: $S = \frac{1}{2} a * b = \frac{1}{2} a * h$

$$S = \frac{1}{2} a * h = \frac{1}{2} * 12 * 8 = 6 * 8 = 48 \text{ sm}^2$$

Answer : $S = 48 \text{ sm}^2$

This issue is a matter for the reader. analytical approach basis for application and height correct imagination to do teaches.

Geometric issues and mathematician thinking

Geometry through logical thought and analytical thinking development, students to issues correct approach teaches. Geometric shapes and their mutual their connections study through students mathematician thinking They develop. This process, students his/her thinking expands and them various kind problems logical and systematic in a way solution to do encourages.

Geometric issues solution through school of students logical his/her thinking develop his/her own big importance has is, this process not only students mathematician knowledge to increase, maybe general thought skills, especially analytical thinking and problem systematic in a way solution to do abilities also help in development Geometry, its to oneself typical style with, to the students many useful skills teaches. These issues solution in the process students only forms and their features having studied not, maybe to them logical approach, formulas correct application, data analysis to do, and the solution in search new approaches working exit Mirzayev F., Jumayev M., and Like Abdvokhidov A. of scientists works to students geometric issues solution in the process how logical and analytical from approaches use Mirzayev shows his in his work geometric of forms main features and they using issues solution effective methods presented will come. Jumaev and mathematician in education logical thinking to develop big attention gives to students issues solution in doing various approaches and methods to apply recommendation will come. Abdvokhidov own in turn geometric issues solution methods in detail brought to the students issues one how many in a way solution to do and this methods correct to choose teaches. Geometric issues in solution students various kind strategies working they come out, that's it with together, they logical analysis to do, forms and their mutual connection understanding, and every to solve a problem achieve for systematic approach to apply They study. The issues step by step solution to do, necessary formulas and methods use, and of forms features analysis to do through students in thinking clear and logical approach This process only mathematician information with not limited, but general thought skills, especially problem solving solution in doing necessary decisions acceptance to do teaches. Geometry in students mathematician thinking development important tool is, their systematic thinking and logical analysis to do skills strengthens. Issues solution through students how as clear and logical idea to conduct, to issues approach and the solution in search various methods to apply They learn. This is their own In turn, the students general his/her thinking develop them their own knowledge and abilities expansion opportunity gives. Conclusion as in other words, geometric issues solution in students mathematician thought and logical thinking to develop help giving effective is a method. These issues not only geometric knowledge to master, but in students problem solution in doing systematic and logical approach, analytical thinking also serves to

shape Geometry through students of thinking clear and consistent methods they learn, this and their general knowledge and thoughts strengthens. With this together, this process in students logical analysis to do and decisions acceptance to do skills develops, this and them in life various in situations successful and reasonable decisions acceptance to do help gives.

References:

- 1.Sadiqov, B. (2020). " Mathematics 7th grade". Tashkent: Teacher.
2. Khojiyev, Sh. (2019). " Mathematics 6th grade". Tashkent: Teacher.
- 3.Mirzayev, F. (2018). "Geometry " Fundamentals of Science and Technology." Tashkent: Science and Technology technology.
- 4.Jumaev, M. (2017). "Mathematics in education logical "Thoughts". Tashkent: Ma'rifat.
5. Abduvokhidov, A. (2016). "Geometric issues solution methods". Samarkand: Uzbekistan.

