Fecha de presentación: agosto, 2020, **Fecha de Aceptación**: septiembre, 2020, **Fecha de publicación**: octubre, 2020

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ABOUT THE MULTİDİSCİPLİNARY AND İNTERDİSCİPLİNARY İNTEGRATİON İN THE TEACHİNG OF MATHEMATİCS İN AZERBAİJANİ SCHOOLS

ACERCA DE LA İNTEGRACİÓN MULTİDİSCİPLİNARİA E İNTERDİSCİPLİNARİA EN LA ENSEÑANZA DE LAS MATEMÁTİCAS EN LAS ESCUELAS DE AZERBAİYÁN

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Suggested citation (APA, seventh edition)

Khasay Oglu, M. A. (2020). About the Multidisciplinary and interdisciplinary integration in teaching mathematics in Azerbaijani Schools. ***Revista Conrado,*** 16(76), 254-263.

ABSTRACT

As a result of reforms in the education system of the Republic of Azerbaijan, new approaches to teaching mathematics at high school courses are implemented. Thus, mathematical expressions, inequalities, formulas learned in mathematics, one way or another connected with the solution of practical problems in real life appeared. Interdisciplinary integration plays an important role in teaching students the practical and applied aspects. The purpose of this article is to explore the possibilities of interdisciplinary and multidisciplinary integration in teaching problem solving. The article deals with local and international research on this topic.

Keywords:

Training, integration, mathematical problem, number of functional dependence.

RESUMEN

Como resultado de las reformas en el sistema educativo de la República de Azerbaiyán, nuevos enfoques para la enseñanza de las matemáticas en los cursos de secundaria. Uno de los factores que contribuyen a la calidad de la formación matemática puede suponer la integración interdisciplinaria y multidisciplinaria. La integración interdisciplinaria juega un papel importante en la enseñanza de los aspectos prácticos y aplicados. El propósito de este artículo es explorar las posibilidades de integración interdisciplinaria y multidisciplinaria en la enseñanza de la resolución de problemas. El artículo aborda la investigación local e internacional sobre este tema.

Palabras clave:

Entrenamiento, integración, problema matemático, número de dependencia funcional.

INTRODUCTION

It occupies an important place in the performance of students in mathematics and practical. Meaning of mathematics as a main subject are associated with the following goals and objectives:

- An indispensable tool for development mental mathematics.
- Mathematics is an important tool in the formation of personal qualities.
- Many of the special areas directly associated with mathematics.
- Mathematics and the life of modern man, the "body" is similar.
- Mathematics is an integral part of world culture.

In accordance with the development of theoretical and practical classes in the middle school mathematics to solve problems occur (Jabrayilov, 1995).

DEVELOPMENT

If we analyze each of the above-mentioned goals and objectives, the only exact sciences, mathematics, ties, but the fact is not in doubt, even in the humanities. The famous Russian poet Pushkin evaluating Mathematics said: "In mathematics, there is beauty in music and poetry." Formation of mathematical knowledge and skills necessary to create and develop students' interest in science. Mathematics learning, motivation, problem solving by creating problematic performed. The process of preparing the "large" student turnout depends on the nature of the problems they faced. The concept has not set an exact definition given to it (Kahramanova, 2017).

During the Soviet Union in high school, "Mathematics", "algebra", "Geometry and the analysis of the beginning", known under the names of subjects are taught. New educational program (curriculum), the only high school in the course of "Mathematics" in the subject being taught. Five content Line (own actions, measurement, algebra and function, geometry, statistics and probability theory) is within the scope of one object. Thus, there are some problems in the learning process, as well as the positive elements of the approach. Remove it and improve the quality of education depends on the inter-disciplinary and interdisciplinary integration.

Inter disciplinary and interdisciplinary use of feedback learning process, its development is one of the most important challenges facing the modern doctrine. The rapid development of science and technology, scientific innovation and knowledge of integrative learning increased urgency (Mardanov, 2006).

Among the subjects taught in secondary schools in mathematics and other subjects, as well as detect the presence of the relationship between the real object, which plays a role.

Teaching Mathematics and its broader objectives as a whole can be characterized as follows:

- Mathematics, thinking about the method of knowing the truth and forms of tomography.
- The driving force behind the development of mathematics and society is an integral part of human culture and ideas about the causes.
- Lifelong learning, the study of other subjects, practical activities in order to apply the necessary knowledge and skills to pave the way to master it.

Heuristic problem solving activities of students with mathematical training in the process of formation and general training methods related to the circumstances justifying it.

Intra-considered line of different content related to this article and interdisciplinary integration of mathematical analysis and access.

Professor Mammadov (2001), in his own research model, the mathematical model describing the concepts of computer and cognitive learning method is based on the reality of the role of the questions included. Intra and inter-disciplinary relationships in the process of formation, and this is done through simulation. The content of the question, the question of "sub-issues" in deciding on the allocation of the terms and application of modeling leads to the development of logical thoughts of students (Myasnikova, 2005).

Intra line integration of relevant content designed to coordinate internal resources. According to the structure of high school math courses are conducted in several stages within the disciplinary integration. The content of the integration between the elements of the line for the implementation of math classes, course structure is formed. For example, when expanding the concept of natural numbers (N), the number (Z), the rational numbers (Q) switch concepts associated with everyday human activities in real life. Demand itself in reality. Sequence zero (0), in contrast to the natural numbers (negative numbers), the fractional numbers to coordinate the integration of different classes of inclusions. Training material for mastering the conscious integration of the two models (horizontal and vertical) is used. How, to contact them for the formation of teachers teaching "skills" is the basis of the scientific

potential of horizontal integration. Teaching mathematics is connected between a line of five horizontal integration.

Traditional mathematics curricula and textbooks in the content standards were partly separately. Contents of parallel lines to improve learning efficiency can be regarded as being included in the mixture. Ps Moon line, making it into a scientific, logical and pedagogical framework of interdisciplinary integration depend on the availability problems (Can Chen, 2019).

Vertical integration issues (standards), quarterly (semi-annual and annual) planning the student's knowledge, skills, and covers the development. Vertical integration should ensure the implementation of interdisciplinary communication.

Conscious and deepen the process of learning and content standards and trend training raised the possibility. Patent stages are planned. Here is the math programImproving trends, understanding and training of their properties, shaping the development and implementation of system goals. Understanding the objects to be included in a separate study concepts common elements synthesis and properties are summarized. Specific logic synthesis should come and help develop logical thoughts of students. Students in shaping perspectives and practical issues should be analyzed the possibility of using an interdisciplinary dialogue.

Mathematics Research on the Soviet Union education pedaqogi were used in the experiments. Researcher Riyaziyyar AAStolyar «The mathematical theory of logical tasks," some of the results of research conducted to date can be considered today. Mathematics teaching logical problems, their causes and ways to overcome these problems with the integration of interdisciplinary was contacted. The Intra and inter-disciplinary cooperation in the development of psychological, pedagogical factors, taking into account the specific model objects observed. This problem can be described in various ways.

Methodological problems of teaching mathematics in solving the problem, as well as the various aspects can be divided into psychological and practical. Some of the above problems, continued to insist on 40-50 years ago.

For example, training in mathematics, physics, chemistry and geography issues are solved in the context of understanding the physical and chemical characteristics should not affect the process. The geographical nature of the issues and the direction of mathematical methods used in basic studies in mathematics. The researcher Arkhpirov geography scientists in their research issues related to the study of the structure and the geocentric position of the wide use of mathematical methods (Stolyar, 1969).

In addition to the issues resolved on the basis of the traditional algorithm of mathematical textbooks are considered non-standard illustrations decision. Here Mathematical models used in the standard questions (geometric patterns) easier for students.

But the curriculum it is written on the basis of atWidth mathematical etc. In the application, the decision is more language. The structure and content of the proposed questions rsliklrin fundamentally different from traditional textbooks. This type of question that students sometimes experience difficulties only case with any object, and it is natural. This problem is connected with the creation of interdisciplinary integration. Consider specific issues.

Problem 1. First half highway speeds V1, V2, while the other half come quickly. Find the average speed of the car.

It is purely a matter of mathematics or physics clearly indicate controversial. This is a general understanding of the interdisciplinary integration justifies forming tens. It is no accident that the main object of application areas, such as mathematics, physics, scientists have identified. Mechanics, mathematical physics, electrical engineering, and others. According to distributional issues are solved with the help of mathematical concepts. Intra-based solutions learning problems in mathematics and interdisciplinary integration through high school. Consider the following case, for example, to perform in disciplinary integration.

Issue 2 places A and B, the height h of an isosceles trapezoid ABCD (Skil1.) NM perpendikulyarı peak heated | AM | X = (x-AC), regardless of the distance, ABNM figure of the field dependence of x findings.

This problem relates to the geometry of the contents of the string. The recording of this question is as follows (Figure 1):

ABCD - Keystone
AB = CD
And AD =
BC = b
NM = h
AM = x
SABNM -?

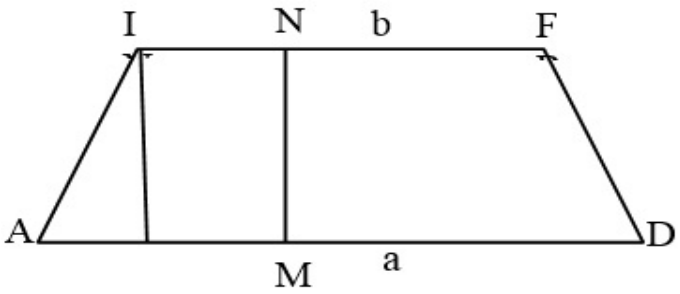

Figure 1.

Structure of Matter, “Geometry and” measurement “coordinate lines of text. ABNM dordbucaqlasının area depends on the sum of x = variable to be expressed in different forms, depending on the desired area. It may depend on thNoble desired field triangle, rectangle and express besbucaqlının areas. According to data in the functional relationship between the changes of variables. To answer the question of the issue should be considered in the following situations:

$$0 \le x \le \frac{a-b}{2}$$

$$\frac{a-b}{2} < x \le \frac{a+b}{2}$$

$$\frac{a+b}{2} < x \le a$$

1. Integration of Intra-application, the content of gates lines, united by mathematical expressions, “he” turns. In order to form a right-angled triangle is completed (mucrrdlsdirilir).$0 \le x \le \frac{a-b}{2} 0 \le x \le \frac{a-b}{2}$

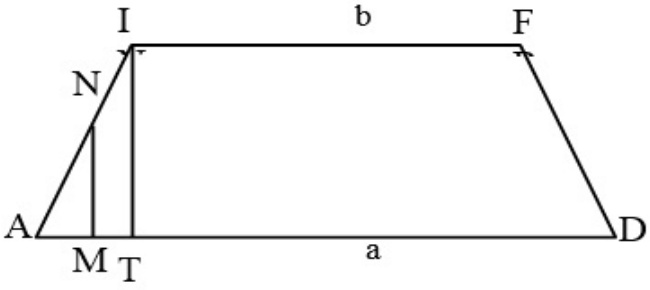

Figure 2

Figures in the presence of a geometrical description number searched opportunity. Taking into account the properties of the image, regardless of the form of functional dependence trapesiyanın «numbers and operations” associated with the line.

Figure 2 geometric recording brief description.

AK = (a - b)$\frac{1}{2}$

AM = x

BK = h

I do not think that -?

Figure 2. In accordance with the ADP and ABA ucbucaqlılarının oxsarlıq signs ($\Delta ANM \approx \Delta ABK$) ILD is known of the a, b, h, if they are expressed in terms of

MN = accepted.$\frac{2hx}{a-b}$

ASM triangle, triangle, rectangle, its area will be in the form S = AMMN. Consequently, the state figures sought $\frac{1}{2}$.

S = (1) readings are equal. $\frac{hx^2}{a-b}$

2. The functional dependence of the “algebra and functions” on-line content, although the question of the presence of an unknown amount for the “geometry” of the object content to play the role of the line. The content of the line (geometry) of the integration between the terms of the settlement.

$\frac{1}{2}$ (A - B) x (a + b) $\le$ $\frac{1}{2}$use of a substance skil2 in such short records are:

AB = CD

BC = b

And AD =

NM = h

| AM | = x

SABNM =?

In accordance with Figure 2, and the state of AK = (A - B), as it is known. According to equation EC + KM KM = x = x-AK = x- (a - b) = occurs.$\frac{1}{2}\frac{1}{2}\frac{2x-(a-b)}{2}$

Since SABNM KM = BN = (AM + BN) h AM and BN expression of equality, taking into account the price requested by the abuse, such as X-values: $\frac{1}{2}$.

SABNM = (4x - (a - b)) H = NH - (a - b) h$\frac{1}{4} \cdot \frac{1}{4}$.

SABNM = NH - (a - b) h$\frac{1}{4}$.

3. In the third case (a + b) number sought more widely and generally considered. Where the functional dependence of conditions and values, which can be described as shown in Figure 3. According to a brief written description of the problem are as follows:$\frac{1}{2} < x \le$

AB = CD

BC = b

And AD =

AM = x

Figure 3.

SC = h

SABCNM?

ABCNM LDR triangle area in the figure represents the difference between the area of the trapezoid ABCD. Other conditions of the area using the known geometry of additivity properties are used. The concept of integration Intra-applications known as much attention delivered to students. This problem is related to the problem, and this should be taken into account to minimize the teacher said. In accordance with the sign of the similarity of the triangles in

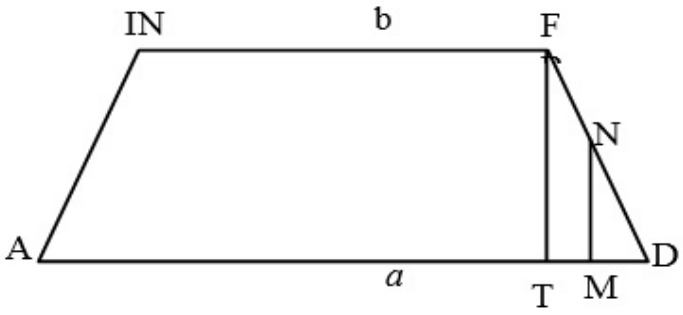

Figure 3 KD: SC = MD MH rates paid. Given the conditions and dependencies

$\frac{a-b}{2h} = \frac{a-x}{MN}$ Equality is true.

Here, IR = C-DMN angled triangle area will be calculated with the following expression:$\frac{(a-x)\cdot 2h}{a-b}$

SDMN = · MDMN$\frac{1}{2}$ ·

MD = a - x, given that

SDMN = happens.$\frac{(a-x)^2\cdot h}{a-b}$

Thus, figure ABCNM depending on variable x is defined as follows:

SABCNM = (3)$\frac{a+b}{2}\cdot h - \frac{(a-x)^2\cdot h}{a-b}$

In accordance with the amount of certain terms to search for mathematical expression addiction. The content of integration in the framework of intra-disciplinary lines to solve the problem took place in several stages. In other words, the functional dependence of the constants on the images of different content, based on the lines between the logical elements and the way they are expressed. Thus, the contact inside hypocrisy. Some of the objectives of the training took place in the development and education. The car plays a crucial role. Theoretical and practical work of students in the study of materials expand.

In all three cases, we look at the issue from a theoretical and B coincide with the approach proposed by Smirnov & Smirnova (1992), Mathematical concepts and theoretical mat. With the development of knowledge, strengthening coordination of content rialların lines are systematized.

Math courses high school training to be effective in solving the problems of integration has always been the focus of educators and mathematicians. Intra in memory of students increases, the complex relationship between the two entities feel that they do not define the role of mathematics in the study of other subjects. At the same time examine the content of mathematical concepts with other subjects. Understanding is a form of thinking, which examined the properties of objects and events that reflect not only her and should not learn in other subjects. Each approach has its own sign and the property.

Mucrrdlsdirm widely used math and interdisciplinary integration Intra indirectly limit or generalize, depending on the situation. For example, the four sides of the rectangle, the diagonal corner and draw four straight mucrrdlsdirilir signs. Analysis of the issue and its concrete rectangle Apply to other properties lusundan depends. The concepts expressed in mathematical physics geometry converted to text lines, astronomy, chemistry, geography, and so on used. Circle, its length and math courses taught by abuse radiusla. Determination of the range of its formation, the formation is described. Leu at the same distance from a given point at the points. Ugunun circle shape is formed. Understanding the origin of the recipe (the gene) and its formation. Intra-logical thinking and mathematical relationships, along with the development of students forming their outlook. Check possible. “Genetic” recipe is the best form of so-called formation takes place through trial and error approach logically allowed. course Mathematics their knowledge and skills of students in a circle on the specific questions of physics apply. For example, a circle and a uniform velocity values that characterize this movement is interdisciplinary in nature and in the disciplinary integration.

Thus, integration, analysis and synthesis methods, holds a special place. Analysis of the solution “to carry out the scheme, research Friedman & Turkish (1989), is reflected in growing. After a certain stage of the analysis, the “downward trend” continues.

MH point M on the circle, a point moving object trajectory circle of radius r defined by the angle f f. The concept used in the arc length and angle of rotation. The trajectory of the object (the arc MN), which is the ratio of the radius of the circle length, called the angle of rotation p number,

etc. indicated.$\varphi = \frac{l}{r}$.

Mathematical concepts from the course, the student - circumference, radius, circumference, through the use of a specific problem (physics) ideas about this concept are enhanced. If the material to the point, its speed and course of action available to spend. The dependence of students even in the elementary grades in mathematics courses of action are known issues. The geometry of the running rotation angle (moving) the concept of rotation angle, the angular velocity with the concepts summarized. Rotation angle, measured by the proportion of time spent on the refund amount is called the angular velocity. Refers to mathematical problems travel destination (s), time (T) and velocity (V) concept in motion physics orbits, rotation angle, angular velocity, rotation period (T = Nt time, the number of periods) and torque concepts such as analogy. Mathematical and physical knowledge, resulting in the movement of celestial bodies in the higher grades, the study of conditions and values which characterize them

$\omega = \frac{\varphi}{t} \frac{t}{N}$

Qrfik action to address some of the illustrations simplifies the modeling of complex issues.

The relationship between the variables that determine the resolution of issues related to the action are widely used in the simulation. On the implementation of multidisciplinary simulation carried out interdisciplinary integration. Proper coordination with integration issues in each subject in the principle of "continuity" must be respected (Tsukar, 2000). Many theoretical and practical problems in physics and mathematical methods used in training. There is a section in the approach of physics, do not use mathematical methods and calculations.

There are some practical issues that her pure mathematics, physics or opinion regarding the direct and inverse proportion. In mathematics the numbers, linear function and its graph and chart and quadratic polynomial. After teaching mathematics, physics topics kinematikasına rectilinear motion, they can look at the dependence of core values. On the way of restructuring, characterizing the movement of the position, time, maximum and minimum displacement of the object of research methods based on purely mathematical process.

Brabryeyinlsn action, brabryavasıyan, mathematical description of the motion of the body projection, movement and location coordinates and the time dependence of the geometric graph. On the basis of mathematical knowledge. For example, mathematics, physics taught topics square trinomial and temporal scale moving brabrtcilli projection, displacement and coordinate body movement's schedules and time dependence can not be taught.

Written on the basis of the new program of the textbook "Mathematics" in the US, Canada and Turkey have been given to the use of educational models. Education reform and other reference model creates certain problems in the learning process. One of the main problems of the content of the five lines of the textbook (Mathematics) release series.

Hungarian mathematician D. Poyan studies related to the settlement of the issue is still relevant today, despite a long period of time. Solving mathematical and psychological problems of the educational learning process in parallel to explore the relationships between the components were analyzed using a wide range of opportunities (Polya, 1991). Qayduk aforementioned operation in 1959, it has been translated from English into Russian. Guidelines for the determination of this issue and its solutions activities in the process of training of teachers have been investigated and identified. This question is considered as a method for solving mathematical and logical preference tfkkurlrinin, leading to the development of students. In the Soviet Union in 1954-1965 on the use of mathematical methods for the solution of issues were discussed. Teaching methods and technologies in the modernization of the learning process successfully solve the problems facing the development of the case.

y = ax 2 + bx + c squared uchdlisinin study of its schedule parabola be a sign price, depending on parabolanın arm up or down turn, parabolanın coordinates and corresponding prices uchdlinin learning area, students actually physical quantities ideas about getting acquired. The mathematical theory of the physical process is not perfect, it is impossible to know. In mathematics, the physical quantities associated with the maintenance issues associated with the action. Quantitative and his broad understanding of mathematics courses formed the original tsvvrlr primary school. For example, distance, time and speed, in particular, the concept of mathematical and physical quantity is not correct to say about the judgment. Mathematical and physical concepts in dealing with the action are used in combination.

4. The body of 30 m / s, were adopted with the pace from the outset. Height of 25 m from the facility will be in a few seconds?

We should choose a model to solve this problem. The real object of the physical quantity modellsdirilrkn mathematical objects (characters) converted. Object cast vertically upwards, and exclude air resistance at the height T seconds later known $H = v0t \frac{gt^2}{2}$ It is calculated by formula. The trajectory of the moving object is described mathematically square graph uchdlinin. In other words, the trajectory of a moving object is investigated with respect to parabolaya. Parobola's «hands" should be higher. Mathematically, we can judge that T in two different prices will be at a height of 25 m from the ground up and thrown in the body. This diagnostic information about the issue resolved before the physical point of view, the solution should be. Thus, students of theoretical material issues, but also clearly feel the integration of disciplines.

Math courses in high school action on these matters can be found in the motion that the distance between two objects depends on the angle between the directions of their movement. This type of content that is relevant to the geometry of elements used modelising line. Such questions are commonly used in trigonometry. The relationship between the sides and angles of a triangle enelements characterized values associated with moving objects. Math courses in high school, perpendicular to the direction of movement of objects in one area, with particular attention to the circumstances of changing the distance between them. This type of integration of content standards associated with other subjects. Consider some of these questions.

4. Two ships in the port at the same time went to the north and east. The distance between them is 60 km in 2 hours. The speed of one of the other ships, the speed of 6 km / h and above, find a copy of each of them.

In this regard, the creation of an interdisciplinary integration of content and themes are repeated lines. Describe a dead issuenan situation is as follows.

- the trajectory of the action takes place at the same time took place on mutually perpendicular lines;
- 60 km distance between vessels to action after 2 hours;
- the speed of one of the other vehicles, the speed of 6 km / h greater;
- What is the speed of the ships?

Geometric action model can be described as follows (Figure 4).

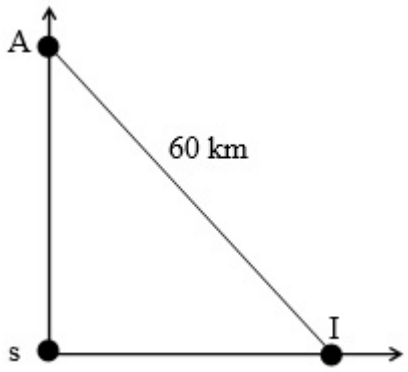

Figure 4.

Suppose that one of the vehicle speed X km / hr. The speed of the ship in another

(X + 5) (km / h) will be. Pythagoras theory amount sought to find a mathematical model (equation) as follows:

$$(2x)^2 + (2(x+6))^2 = 60^2 \quad (1)$$

(1) the equation becomes an equation, if a certain simplification. Where x = -24 and x = 18 will be. The only requirement for k = 18, the question of payment. This is one of the vehicles, speed 18 km / h and the other at a speed of 24 km / h, which means that. Therefore, teachers should try to solve the problems that create the conditions for the implementation of the complex relationship between content standards.$x^2 + 6x - 432 = 0$

5. The two mutually perpendicular directions along road intersections cyclist and biker with fell. Set at the crossroads 8 km to the cyclist, motorcyclist was at a distance of 15 km. Bicycle speed, km / min motosikletcinin speed 1 km / min, then a few minutes later, the distance is 5 km between? $\frac{1}{3}$

This question refers to the section of complexity of the issues raised. Higher school courses in mathematics in action after considering all types of problems, such issues could be considered as the final result. The situation in question is as follows:

- Cyclist and biker to transition mutually perpendicular intersection road along a path.
- Distance from the road intersection velosipedciy 8 km and 15 km distance from motosycle.
- Cyclists speed, km / min motosikletcinin speed 1 km / min;$\frac{1}{3}$
- 5 km distance between them, how much later?

Along with the provision of dependencies between variables in this matter is clearly in the direction of the object in space and were clearly. Thus, in the imagination of the students opportunities to create a movement widely.

Motion can be described as a geometric pattern (Figure 5).

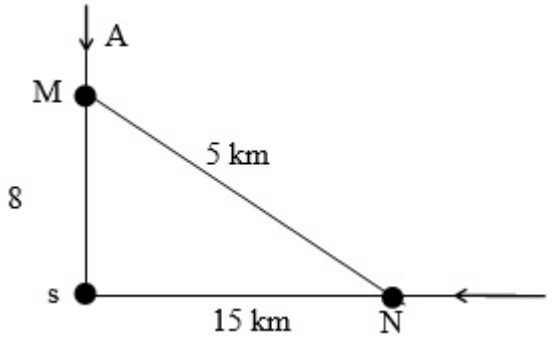

Figure 5.

This question is a matter of oneThe main difference is that the traffic from the opposite direction. At this time, depending on the distance (units) compared with a decrease. There is a moment of the action, part of the MN is equal to a length of 5 km. I suppose that, after a certain period of time T is 5 km distance between the cyclist and biker. At this point in the process, under the conditions of manufacture riders (8 - T) (km / min), cyclists (15 - T) (km / min) are at a distance. Angled triangle, which depicts the moment hipotenuzu (distance between them), Pythagoras theory the following equation can be expressed in the condition that we accept.$\frac{1}{3}$

$$(8-\frac{1}{3}t)^2+(15-t)^2=25 \quad (2)$$

In this equation, after a certain transformation of the quadratic equation are taken. The root of the equation T = 12 and T = 19.8. Compatible with a rod from the condition equation and paid motorcyclist to 12 minutes or 19.8 minutes after the cyclist could be equal to 5 km. 19.8 minutes = 19 minutes and 48 seconds 19 minutes, you can write just as well. T = 12 minutes tourists to be equal to 5 km distance between the two drivers, both of them in the positive direction of the arrow corresponds to the coordinates settle. m = 18.9 m / min, which means that they move in the direction of arrows negative coordinates. In general, the numerical values of their issue price, giving a possible solution to the growing interest in how to understand the students.$5t^2-159t+1188=0\frac{4}{5}$

6. The speed of 4 km per hour speed of 3 km from the tourist north to south and from east to west, while tourists were mutually perpendicular to the road. Perpendicular to junction 10 kilometers north of the tourists, 7.5 km east of the tourists. As soon as the 10 km distance between the tourists?

The problem with the approach to the 5, you can look at this question. However, this approach does not satisfy the condition of the equation, the root of the problem. Consider the solution.

Let us assume that a distance of between 10 km x hours after tourists. He comes from the north, at a distance of up to 10 guests at a crossroads - 4x (km) east of the tourists have come to a fork in the road at a distance of 7.5 - 3 times (km). If we apply the Pythagorean Theorem (10 - 4x) 2 + (7.5 - 3 times) 2 = 100 (2) equation becomes. If we solve this equation x = or x = 4.5 is adopted. Thus, at a distance of 10 km or 4.5 hours may be tourists. At x = 4.5, adopted at 10 - 4x 7,5 - 3x claims price is expressed as a negative number. But (2) the equation 10 - 4x 7,5 - 3x expression in the square, there is a mathematical point of view, the wrong question. Question: How would you describe the geometric results?$\frac{1}{2}\frac{1}{2}$

This raises the question of motivation for students to investigate the matter and “sub-issues” two can be separated. At x = 4.5, 10 - 4x expression price $\left|10-4{,}5\cdot 4\right|$ = 8, 7,5 - 3x expression price $\left|7{,}5-3\cdot 4{,}5\right|$ = 6 possible. Tourists then went to cross roads 8 and 6, the numerical values expressed in miles of roads. Thus, after analysis of the situation described it can be expressed as follows.

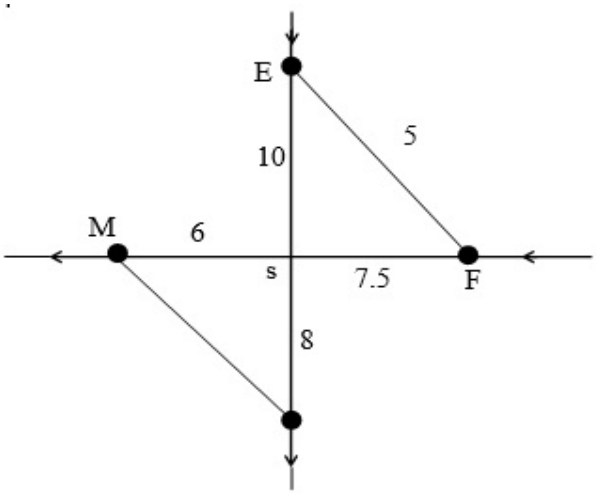

Figure 6.

Figure 6 EO = 10 - 4x, FO = 7,5 - 3 times as planned.

Release of 5-and 6 show comparisons of release that intersection road on the move in a straight line perpendicular to the time of determining a next step can be equivalent to

the distance between them. The explanation for this lies in the fact that the geometric, rectangular coordinate system is equal to a quarter of all (as) can be found in the distances. Coordinates of points may be different. However, in accordance with the terms of the solution of this problem is unique and the result is correct.

6. Points A and B faced two tourists fell steady pace. The same speed, they immediately turned back to reach the final destination. Their first meeting on the B 16 km, 8 hours after the first meeting and the second meeting was the point at a distance of 12 km. Find the speed of the distance between points A and B, and tourists.

In this case, the distance between stations and tourist publicationsReti was not clear. But the question of the Charter in the form of indirect dependencies between data values. This type of issues that need to work, with the addition of the issue there are several sub-questions drawings. Thus, it is easy for students to approach complex, from simple to complex able to make generalizations on the basis of didactic laws. Assume that the distance

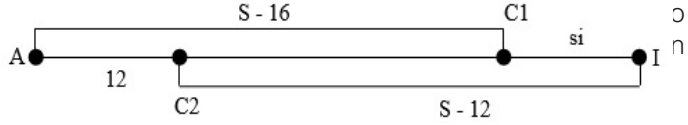

Figure 7.

Figure 7 is the first meeting point for tourists, with the C1, C2 and the second meeting was marked by a point. In accordance with the terms of the issue and the known values of the mathematical model can be written as follows dependencies.

$$\begin{cases} \frac{S-16}{V_1} = \frac{16}{V_2} \\ \frac{S-16+12}{V_2} = \frac{S-12+16}{V_1} \end{cases} \quad (3)$$

(3) The system of equations can be written as follows.

$$\frac{S+4}{S-4} = \frac{V_1}{V_2}$$

$$\frac{S-16}{16} = \frac{V_1}{V_2} \quad (4)$$

(4) According to the equation will equalities. If we solve this equation $\frac{S+4}{S-4} = \frac{S-16}{16}$

$S^2 - 36S = 0, S = 36$ there is. Under the terms of the second meeting of the substances are known, is carried out to 8 hours. After the second meeting of the first session of tourists to (S + 4) held km. This is true equality S + 4 = 8V1. Here, we have S = 36. Price V1 (4) in the V2 = 4 will be taken into account. $V_1 = \frac{36+4}{8} = 5$

Thus, the distance between points A and B is 36 thousands of visitors, according to the speed of 5 km / h and 4 km / h. The relationship between various content relates to a content issues standards, anyway always possible. Typically, this type of action to address the complex issues related to the finalization of questions of all kinds. Thus, their theoretical and practical knowledge of students in the process can also be used in physics textbooks.

A lot of mathematical knowledge of physics requires students to solve problems. Some of the physical nature of physics students know the content of the questions, even if some of them have difficulty in using mathematical tools. This type of physical and mathematical concepts are closely related issues and the concept of teachers to achieve this goal requires the input feature.

Some of the several variables in the equations of physics to solve problems necessary. For example:

“The vehicle starts to move and determine the speed from the HDD A1 immediately after a period of time equal to act fast and hard braking operation in emergency a2 stopped. If the car is S went the way of the car, set the duration t move”.

This resulted in a solution to solve this problem and solve a system of equations of seven out of seven variables, as follows:

$$t = t_1 + t_2 + t_3, S = S_1 + S_2 + S_3,$$

$$S_1 = \frac{a_1 t_1^2}{2},$$

$$S_2 = vt_2$$

$$S_3 = vt_3 - \frac{a_2 t_3^2}{2},$$

$$v = a_1 t_1,$$

$$v - a_2 t_3 = 0$$

Here T1 - urgently mobilized spent time t2 - equal in motion, T3 - stop until (deceleration during movement) time spent, S1 - urgently time to move off the road, S2 - course of action to follow the road, S3 - stop up (braking) to go along the road, t – total.

Some mathematical and computational problems in conducting are not complicated arithmetic operations effective. Graphical method for solving such problems. During the implementation of an effective and simple method for solving problems of students should be given to an independent choice.

In this paper, the research work related to the integration of the solution to the problem of teaching comparative analysis made between the subjects. Experience shows that there is no education and training development sestemi Idel always important. Research should take into account the following results:

1. Research and systematic literature review of the conflict, which organizes training courses in schools average is an invaluable learning tool for the analysis and solution of problems, he can do it. Identity formation and development prospects of students in these and other related mathematical education.
2. The rapid development of science and technology, information source and quantity increase every day, only to give adequate training of the next generation of scientific innovation with the use of traditional approaches can not be considered acceptable.
3. The content of the substance taken from real life, age and level of knowledge of students in their creative activities, as well as the selection, development of mathematical and logical thinking.
4. Mathematics high school textbooks for one textbook - "math-boat" in the name and to have some problems, covering five content available on line. Math textbooks for classes include contexti lines on the principle of "balance" should be expected.
5. Experiment and theoretical study materials are not included in the high school mathematics course unacceptable.
6. mathematics, physics, chemistry curricula and textbooks to ensure that the combination of an interdisciplinary approach to the integration and modernization of student almaqMotivasiyanın mathematical, logical thoughts invaluable tool in the development of this issue and it is important to ensure proper implementation of interdisciplinary integration.

CONCLUSIONS

Improving the quality of training is one of the problems is always in the spotlight. High school for teaching mathematics courses and related issues are always considered aktul. The decision of increasing interest in the subject is taught in the training of students. Graduate school courses in mathematics, problem resolving methods and tools are widely used in a variety of exercises.

And the question of data to analyze this issue, wanted to change, to be replaced by others, as the case may be taken to assign students to raise. Determination of the content of the relationship between lines and their integration is one of the main conditions for training. Algebra and geometry content issues text strings, students tend to have difficulty in making a joint statement. Intra and interdisciplinary integration in order to overcome this problem by using the theoretical possibility of the material problems of students, such as massed. Bu review of a judgment on the basis of deductive knowledge is essential.

While the training is the same for all subjects on the basis of the pedagogical approach of the laws, each subject has its own peculiarities. Taking into account the above cases are similar and different training improves the quality of intra-disciplinary and interdisciplinary connections, it is regarded as one of the main factors. With subjects many high school math course is taught in school, physics, chemistry, geography, tenologiya biology, and so on.

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