Equations

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Annontation: This article discusses the types of equations in mathematics about equations.

Keywords: Equation, thinking, logic, theoretical, malamute, pedagogical,amal,son.

The textbook of mathematics involves teaching students how to solve certain different issues by drawing up equations. Adding, separating, multiplying, and dividing issues by creating equations is an important task to teach them how to solve simple issues and, together with examples, to solve textual issues using equations to strengthen students' knowledge. It is the main objective to develop and develop logical thinking abilities, to express themselves independently, to expand students' thinking worldviews, and to educate them of their minds and the virtue of preparation. The textbook of mathematics involves teaching students how to solve certain different issues by creating equations. In order for students to learn how to solve issues by creating equations, they will have to distinguish between the amounts given and tracked in the issue. Solving simple issues by creating equations begins in the second grade. In the second grade, simple issues related to finding unknown components of the actions of adding, separating, multiplying, and dividing equations are solved by the way equations are formed.

The equation is a mathematical equation that indicates that two or more expressions are interconnected . Equations can be used in all theoretical and practical fields of mathematics and in physics, biology and other social sciences

Tenglik belgisining birinchi marta ishlatilgani (14x+15=71). Robert Recordening „Witte Chaqmoqtoshi" („The Whetstone of Witte") kitobidan (1557).

In the equation, there will be one or more unknown values, known as variablesor unknowns. Unknowns are usually represented by letters or other characters.

Equations are named depending on the number of variables in them. For example, one variable equation, two variable equations, and so on.

In the equation, expressions are usually written on both sides of the equal sign (=). For example, the equation $x + 3 = 5$ emphasizes that the expression $x+3$ is 5. The equality sign (=) was concemed by Scottish mathematician Robert Recorde (1510-1558). [2] He assumed that there would be nothing more equal than the parallel straight lines of two identical lengths.

The first solutions to the equations were written in the Rhind papyrus, written about 2,000 years before the Common Era . The issues given were arithmetic issues. For example, equations are written for such issues as "mass and its sum of 1/7 is 19." For such an issue, a simple equation such as $x+1/7x$ is written, marking the unknown as x. After arithmetic issues, two unknown value equations emerged. The Greeks knew the additional linear equations. The inconclusive equations given in systems such as Archimedes' "livestock issue" were not seriously studied until Diofant developed several such equations.

The square equations occurred when the Greeks were studying proprietary ones. They solved square equations in a geometric way. But this geometric method has nothing to do with the current combined algebraic geometry. In algebraic geometry, equations with graphics or vice versa can be represented by graphics. A simple square equation is derived from determining the average proprietary x between the two a

ISSN NO: 2770-0003
Date of Publication: 10-11-2022

and b lines or finding a square equal to the given rectangle. The proprietary used was in the form a:x = x:b. If this is an expression, it is equal to $x^2 = ab$. The algebraic equivalent of an issue where you need to find a line median given a more general equation in the $x+ax-a^2$ view . Diofant is told that the algebraic solution to the square equation was known. But she noticed only one root.

A simple cubic equation is given in an issue where one needs to find x and y average props between two lines twice longer than the other. This can be summed up in the a:x=x:y=y:2a view. This expression is derived from x^2 = month and $xy = 2a^2$. If we destroy y, $x^3 = 2a$ Simple Cubic Equation is produced. The Greeks were unable to solve this equation. This equation has also come to the face in making the dome's duplicate and dividing the angle into three equals with a drawer or circus. To be an angle, they used mechanical curves such as sissoida, cone, and square . Such solutions were improved by the Arabs. They solved cubic and bikvadrate equations with cone cuts. The Arabs further advanced their methods of solving the approximate roots of the equations that began diofant and improved by the Indians in algebraic ways. Algebraic solutions to cubic and bikvadrat equations were developed in the 16th century by S. Ferro, N. Tartaglia, H. Cardan and L. Ferrari.

There has been a lot of attempts to solve level five equations. P. Ruffini and N. H. Abel have proven that this is not possible. C. Hermite and L. Kronecker have shown a solution consisting of elliptical functions, and F. Klein has also proposed another way to solve these equations.

In a geometric approach to equations, the Greeks and Arabs made conclusions based on the properties of some curves and figures. A solution was found for private cases using propriearies, but there was no satisfactory response to the general situation. This problem was solved by René Descartes in the 17th century . He developed a general theory that explains the graphical solutions of equations. Specifically, Descartes has shown cases where conical cuts have been used. In addition, Descartes has shown that each equation has the positioning of geometric points and that the positioning of each geometric point has an equation. To represent two x and y unknown equations, Descartes took two perpendicular shots together. Measured x along the horizontal aquaculle and y along the vertical aquaculle. He then showed that the linear equation represents a straight line and that the square equation represents a conical line.

The equation is often compared to the scales. Again, balance, nesting or other similar bodies are similar to the equation. Both sides of the balance correspond to both sides of the equation. Different values can be inserted on either side. If these bodies are equal, the balance will match the equation. If bodies are not equal, then this is like inequality. In the image to the right, x, y, and z are different values (here they are real numbers), which are described as weights in the shape of a circle. The add action is suitable for adding weight, and if there is a separation, it is suitable for loading from the scales. The total weight on both sides is the same.

Tenglamalarning teng kuchliligi[tahrir | Manbasini Tahrirlash]

Equations with the same roots are called equally strong equations. Each equation that does not have roots is equally strong. In the process of solving the equation, it is tried to replace it with an equation that is simpler but equal to the given equation. Therefore, it is important to know that the given equation in any shape replacements will go to an equally strong equation.

Theory: If any add-on in the equation is changed from one side of the equation to the other, a strong equation equal to the given equation is produced.

Theory: If both sides of the equation are multiplied or divided by a number different from zero, a strong equation equal to the given equation is produced.

For example, equation

equal to the equation (both sides of the first equation were increased to 3).

Basic Properties of Equations

ISSN NO: 2770-0003
Date of Publication: 10-11-2022

Various actions can be performed on the algebraic expressions contained in the equation. In this case, the roots of the equation do not change. Common actions include:

Rational Equations

Rational Equation

A rational equation is called an equation made up of rational expressions. If f(x) and g(x) are rational expressions, the equation is called a rational equation. In this case, if f(x) and g(x) are all expressions, the equation is called the entire equation. If at least one of the expressions f(x), g(x) is a fraction expression, f(x)=g(x) is called a rational equation or a fractional equation. Linear, square equations are all equations.

Bikvadrat tenglamalar

Bikvadrat tenglama

The bikvadrat is called the equation, which is called the fourth level equation. The general view is expressed as follows:

Bu yerda a≠0.

Irratsional tenglamalar

Irratsional tenglama

An irrational equation is called an equation that contains a variable under the root sign. Two ways to solve irrational equations are common. These are methods of leveling both sides of the equation to the same level and introducing new variables.

The parameter equation is said to be an equation that represents any connection using parameters. As a simple example of a parameter equation, you can cite an equation from cinematmatics that represents the location, acceleration, and other characteristics of an object in motion with a time parameter. In an abstract sense, you can say a set of equations as a parameter equation.

Differential tenglamalar

Main article: Differential Equation

The differential equation is unknown functions, their different orderly yields and equations involved in male variables. In these equations, it is determined by an unknown function i, and in the first two it depends on one male variable t, and in the latter it depends on x, t and x, y, z male variables, respectively.

Integral equations

: The integral equation

An integral equation is an equation under an integral sign of an unknown function. Integrated Equation

The differential equations with r are intertwined, and in many cases they can be replaced by each other.

List Of Available Publications:

1. Gilbert Strang “Introduction to Linear Algebra”, USA, Cambridge press, 5 nd Edition, 2016.
2. Grewal B.S. “Higher Engineering Mathematics”, Delhi, Khanna publishers, 42nd Edition, 2012.
3. Rakhmatov R.R., Adizov A.A., Tajibayeva Sh.E., Shoimardonov S.K. Linear algebra and analytical geometry. Do not miss the training. Tashkent 2020.
4. Raxmatov R.R., Adizov A.A. "Linear Phase and Linear Operators" Educational methodological preservation. TATU, Tashkent 2019.