Calculators

Almost every modern person is well aware of the importance of mathematics in the life of society, because for each individual, it is not only a means of increasing the outlook, but also forms a scientific worldview. This fact is also confirmed by the fact that the beginning of the period of elementary mathematics is considered to be the 6th - 5th centuries BC, but until now the subject is still relevant, and today it is difficult to imagine a scientific discipline that would not include any mathematical calculations. Many prominent figures, both past and present believe that the language of numbers can describe the whole world, and it is not in the direct transfer to real numbers or algebraic fractions of the surrounding world, but that mathematical laws are largely similar to worldly situations and the global development of human history.

A brief historical excursion

Today, mathematics is not only a powerful tool for solving applied problems, but also a kind of universal language of science, and a significant component of human culture. It is clear that the square function did not appear in ancient times, but since the formation of arithmetic in ancient Greece as an independent science of number, mathematics is developing as if from within, dividing into separate directions. From the initially limited basic arithmetic concepts that satisfy elementary economic and vital needs, elementary mathematics develops, then number theory, there is algebra as a literal language of calculus. Along with the emergence of algebra, there is an opportunity to generalize the work of many outstanding minds, from which the geometry of Euclid is formed, described in his book "The Beginning" (300 years BC).

It should be noted that this book subsequently served as a pretext for the emergence of many scientific theories (including visualization of calculations - a square function), but still has not lost relevance. Thanks to the algebraic approach there are such abstract mathematical concepts as algebraic fractions, real, or real numbers, which arose from the need to measure the geometric and physical dimensions of the world around. And this was made possible through operations such as root extraction and calculation of logarithms.

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- Limit calculator

Thus, already by the XVII century it is possible to observe the synthesis of scientific natural science and technical progress, which was made possible through the mathematical study of the processes of motion and transformation of geometric shapes and sizes. The great discovery of Newton and Leibniz "infinitely small size" served as a basis for mathematical analysis and the creation of differential and integral calculus. The period of variables in analytic geometry and mathematics began. Interestingly, this is when the theory that music is also mathematics, only expressed in the language of sounds. To a large extent, this was the reason that the concept of function was brought to the fore and for some time became the main subject of study. Four centuries ago, composers and musicians paid attention to the fact that the square function is, in fact, a wave graph, reminiscent of sound vibrations.

From that time on, mathematical science began to develop even more intensively in several directions, having a direct impact on art, poetry and literature. Nevertheless, the study of function forms the main concepts of mathematical analysis: limit, derivative, differential and integral.

It would seem that mathematical concepts, algebraic fractions and real numbers can be related to natural science, but over time, this relationship takes on increasingly complex forms. An excellent example of this is the brilliant theory of N.I. Lobachevsky about "imaginary geometry".

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