

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ

Федеральное государственное автономное образовательное учреждение

высшего образования

«Севастопольский государственный университет»

УТВЕРЖДАЮ

Председатель приемной комиссии



В.Д.Нечаев

(Ф.И.О)

20 » января 2026 г.

ПРОГРАММА ВСТУПИТЕЛЬНОГО ИСПЫТАНИЯ

Общеобразовательное вступительное испытание по математике (на английском языке)

(название вступительного испытания)

уровень высшего образования

бакалавриат, специалитет

(название уровня ВО)

квалификация

бакалавр, специалист

(название)

Севастополь

2026

Программа общеобразовательного вступительного испытания по математике при приеме на обучение по программам подготовки бакалавриата и программам специалитета для иностранных абитуриентов.

Разработана на кафедре «Прикладная математика и информатика» ФГАОУ ВО «Севастопольский государственный университет» в соответствии со следующими нормативными документами:

– Порядок приема на обучение по образовательным программам высшего образования – программам бакалавриата, программам специалитета, программам магистратуры, утвержденный Приказом Минобрнауки РФ от 21.11.2024 № 821;

– Правила приема в федеральное государственное автономное учреждение высшего образования «Севастопольский государственный университет» на обучение по образовательным программам высшего образования – программам бакалавриата, программам специалитета, программам магистратуры в 2026 году;

– Положение о приемной комиссии федерального государственного автономного учреждения «Севастопольский государственный университет»;

– Положение о экзаменационных комиссиях федерального государственного автономного учреждения высшего образования «Севастопольский государственный университет»;

– Федеральный компонент государственных стандартов основного общего образования, утвержденный приказом Министерством образования и науки Российской Федерации от 05.03.2004 № 1089;

– Федеральный компонент государственных стандартов среднего (полного) общего образования, базовый и профильный уровень, утвержденный приказом Министерством образования и науки Российской Федерации от 05.03.2004 № 1089;

– Спецификация контрольных измерительных материалов для проведения в 2026 году единого государственного экзамена по математике утвержденный ФГБНУ «Федеральный институт педагогических измерений» 12.11.2025г;

– Кодификатор элементов содержания по математике для составления контрольных измерительных материалов для проведения единого государственного экзамена утвержденный ФГБНУ «Федеральный институт педагогических измерений» 12.11.2025г.

Разработчики программы: Руководитель рабочей группы- Ольшанская И.В., кандидат технических наук, доцент кафедры «Прикладная математика и информатика».

Утверждена на заседании кафедры «Прикладная математика и информатика» от 20 января 2026г., протокол № 6.

Председатель предметной
экзаменационной комиссии,
доцент кафедры
Прикладная математика
и информатика»
(подпись)

(дата)

20.01.26

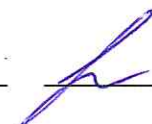


И.В. Ольшанская

Заведующий кафедрой
Прикладная математика
и информатика»
(подпись)

(дата)

20.01.26



В.И. Шевченко

CONTENTS

	page
1. General provisions and procedure for conducting the entrance examination.....	4
2. Main content of the entrance examination program.....	5
3. Grading scale and minimum number of points confirming successful passage of the entrance examination.....	14
4. List of recommended literature for preparation for the entrance examination	15

1. GENERAL PROVISIONS AND PROCEDURE FOR CONDUCTING THE ENTRANCE EXAMINATION

The general educational entrance examination in mathematics for admission to study in Bachelor's degree programs and Specialist's degree programs is conducted with the purpose of determining the ability of applicants to master basic professional educational programs within the limits of state educational standards.

The procedure for conducting the entrance examination in mathematics for admission to study in Bachelor's degree programs and Specialist's degree programs is developed in accordance with the Procedure for admission to study in educational programs of higher education – Bachelor's degree programs, Specialist's degree programs, Master's degree programs, approved by Order of the Ministry of Education and Science of the Russian Federation dated 14.10.2015 No. 1147; the Rules of admission to the federal state autonomous educational institution of higher education "Sevastopol State University" in 2026:

- An examination commission in mathematics is formed in accordance with the Regulations on examination commissions of the federal state autonomous educational institution of higher education "Sevastopol State University";
- Before the examination in mathematics, consultations are held on organizational issues and on the content of the entrance examination program. At the consultation, applicants are informed of the rules for conducting the entrance examination, criteria for assessing examination papers, place and time of announcement of grades, and the procedure for conducting the review of papers and appeals;
- Checking of examination papers in mathematics is carried out by members of the examination commission in mathematics;
- The general grading sheet and the checked examination papers of the entrance examination in mathematics are transferred to the executive secretary of the Admissions Committee.
- The examination papers, prior to their review and appeal, are kept in the Admissions Committee. After conducting the review and appeal, the examination papers are placed in the personal files of the applicants.

The duration of the examination is 3 hours.

The use of calculators and other auxiliary computational and electronic devices during the examination is prohibited.

2. MAIN CONTENT OF THE ENTRANCE EXAMINATION PROGRAM

The main content of the entrance examination program in mathematics corresponds to the elements of the secondary general education school program in mathematics (algebra and geometry). Control measuring materials reflect the topics presented in the Codifier of content elements for the compilation of control measuring materials of the Unified State Exam (EGE) in mathematics, which, in turn, is compiled on the basis of the Mandatory minimum content of basic educational programs and the Requirements for the level of preparation of secondary school graduates (Order of the Ministry of Education of Russia dated 05.03.2004 No. 1089 "On approval of the federal component of State standards of primary general, basic general and secondary (complete) general education").

The first column of the table indicates the codes of sections and topics. The second column indicates the code of the content of the section (topic) for which test items are created.

Section code	Code of the controlled element	Content elements tested by the examination paper items
1		Algebra
1.1		Numbers, roots and powers
	1.1.1	Integers
	1.1.2	Power with a natural exponent
	1.1.3	Fractions, percentages, rational numbers
	1.1.4	Power with an integer exponent
	1.1.5	Root of degree $n > 1$ and its properties
	1.1.6	Power with a rational exponent and its properties
	1.1.7	Properties of a power with a real exponent
1.2		Fundamentals of trigonometry
	1.2.1	Sine, cosine, tangent, cotangent of an arbitrary angle
	1.2.2	Radian measure of an angle
	1.2.3	Sine, cosine, tangent, cotangent of a number
	1.2.4	Basic trigonometric identities
	1.2.5	Reduction formulas
	1.2.6	Sine, cosine and tangent of the sum and difference of two angles
	1.2.7	Sine and cosine of a double angle
1.3		Logarithms
	1.3.1	Logarithm of a number
	1.3.2	Logarithm of a product, quotient, power
	1.3.3	Decimal and natural logarithms
1.4		Transformations of expressions
	1.4.1	Transformations of expressions involving arithmetic operations
	1.4.2	Transformations of expressions involving the operation of raising to a power
	1.4.3	Transformations of expressions involving roots of a natural degree
	1.4.4	Transformations of trigonometric expressions

	1.4.5	Transformations of expressions involving the operation of logarithmization
	1.4.6	Modulus (absolute value) of a number
2		Equations and inequalities
2.1		Equations
	2.1.1	Quadratic equations
	2.1.2	Rational equations
	2.1.3	Irrational equations
	2.1.4	Trigonometric equations
	2.1.5	Exponential equations
	2.1.6	Logarithmic equations
	2.1.7	Equivalence of equations, systems of equations
	2.1.8	Simplest systems of equations with two unknowns
	2.1.9	Basic methods for solving systems of equations: substitution, algebraic addition, introduction of new variables
	2.1.10	Use of properties and graphs of functions in solving equations
	2.1.11	Representation on the coordinate plane of the set of solutions to equations with two variables and their systems
	2.1.12	Application of mathematical methods for solving contextual problems from various fields of science and practice. Interpretation of the result, taking into account real constraints
2.2		Inequalities
	2.2.1	Quadratic inequalities
	2.2.2	Rational inequalities
	2.2.3	Exponential inequalities
	2.2.4	Logarithmic inequalities
	2.2.5	Systems of linear inequalities
	2.2.6	Systems of inequalities with one variable
	2.2.7	Equivalence of inequalities, systems of inequalities
	2.2.8	Use of properties and graphs of functions in solving inequalities
	2.2.9	Method of intervals
	2.2.10	Representation on the coordinate plane of the set of solutions to inequalities with two variables and their systems
3		Functions
3.1		Definition and graph of a function
	3.1.1	Function, domain of a function
	3.1.2	Range of a function
	3.1.3	Graph of a function. Examples of functional dependencies in real processes and phenomena
	3.1.4	Inverse function. Graph of an inverse function
	3.1.5	Transformations of graphs: parallel translation, symmetry relative to the coordinate axes

3.2		Elementary investigation of functions
	3.2.1	Monotonicity of a function. Intervals of increase and decrease
	3.2.2	Evenness and oddness of a function
	3.2.3	Periodicity of a function
	3.2.4	Boundedness of a function
	3.2.5	Points of extremum (local maximum and minimum) of a function
	3.2.6	Greatest and least values of a function
3.3		Basic elementary functions
	3.3.1	Linear function, its graph
	3.3.2	Function describing inverse proportional dependence, its graph
	3.3.3	Quadratic function, its graph
	3.3.4	Power function with a natural exponent, its graph
	3.3.5	Trigonometric functions, their graphs
	3.3.6	Exponential function, its graph
	3.3.7	Logarithmic function, its graph
4		Fundamentals of mathematical analysis
4.1		Derivative
	4.1.1	Concept of the derivative of a function, geometric meaning of the derivative
	4.1.2	Physical meaning of the derivative, finding velocity for a process given by a formula or a graph
	4.1.3	Equation of the tangent to the graph of a function
	4.1.4	Derivatives of a sum, difference, product, quotient
	4.1.5	Derivatives of basic elementary functions
	4.1.6	Second derivative and its physical meaning
4.2		Investigation of functions
	4.2.1	Application of the derivative to the investigation of functions and plotting of graphs
	4.2.2	Examples of using the derivative for finding the best solution in applied, including socio-economic, problems
4.3		Antiderivative and integral
	4.3.1	Antiderivatives of elementary functions
	4.3.2	Examples of application of the integral in physics and geometry
5		Geometry
5.1		Plane Geometry
	5.1.1	Triangle
	5.1.2	Parallelogram, rectangle, rhombus, square
	5.1.3	Trapezoid
	5.1.4	Circle and disk
	5.1.5	Inscribed circle of a triangle and circumscribed circle of a triangle

	5.1.6	Polygon. Sum of angles of a convex polygon
	5.1.7	Regular polygons. Inscribed circle and circumscribed circle of a regular polygon
5.2		Lines and planes in space
	5.2.1	Intersecting, parallel and skew lines; perpendicularity of lines
	5.2.2	Parallelism of a line and a plane, criteria and properties
	5.2.3	Parallelism of planes, criteria and properties
	5.2.4	Perpendicularity of a line and a plane, criteria and properties; perpendicular and slant; theorem on three perpendiculars
	5.2.5	Perpendicularity of planes, criteria and properties
	5.2.6	Parallel projection. Representation of spatial figures
5.3		Polyhedrons
	5.3.1	Prism, its bases, lateral edges, height, lateral surface; right prism; regular prism
	5.3.2	Parallelepiped; cube; symmetries in a cube, in a parallelepiped
	5.3.3	Pyramid, its base, lateral edges, height, lateral surface; triangular pyramid; regular pyramid
	5.3.4	Sections of a cube, prism, pyramid
	5.3.5	Concept of regular polyhedrons
5.4		Solids and surfaces of revolution
	5.4.1	Cylinder. Base, height, lateral surface, generatrix
	5.4.2	Cone. Base, height, lateral surface, generatrix
	5.4.3	Ball and sphere, their sections
5.5		Measurement of geometric quantities
	5.5.1	Magnitude of an angle, degree measure of an angle, correspondence between the angle measure and the arc length of a circle
	5.5.2	Angle between lines in space; angle between a line and a plane, angle between planes
	5.5.3	Length of a segment, polyline, circumference, perimeter of a polygon
	5.5.4	Distance from a point to a line, from a point to a plane; distance between parallel and skew lines, distance between parallel planes
	5.5.5	Area of a triangle, parallelogram, trapezoid, disk, sector
	5.5.6	Surface area of a cone, cylinder, sphere
	5.5.7	Volume of a cube, rectangular parallelepiped, pyramid, prism, cylinder, cone, ball
5.6		Coordinates and vectors
	5.6.1	Coordinates on a line, Cartesian coordinates on a plane and in space
	5.6.2	Formula for the distance between two points; equation of a sphere

	5.6.3	Vector, modulus (length) of a vector, equality of vectors; addition of vectors and multiplication of a vector by a number
	5.6.4	Collinear vectors
	5.6.6	Coordinates of a vector; scalar product of vectors; angle between vectors
6		Elements of combinatorics, statistics and probability theory
6.1		Elements of combinatorics
	6.1.1	Sequential and simultaneous selection
	6.1.2	Formulas for the number of combinations and permutations. Newton's binomial theorem
6.2		Elements of statistics
	6.2.1	Tabular and graphical representation of data
	6.2.2	Numerical characteristics of data series
6.3		Elements of probability theory
	6.3.1	Probabilities of events
	6.3.2	Examples of using probabilities and statistics in solving applied problems

LIST OF QUESTIONS FOR THE ENTRANCE EXAMINATION

- properties of operations on real numbers;
 - rules for comparing real numbers;
 - divisibility of integers, divisibility rules for natural numbers by 2, 3, 5, 9, 10;
 - division with remainder, solving problems with integer unknowns;
 - rules for rounding integers and decimal fractions;
 - definition of an n -th degree root and an arithmetic n -th degree root;
 - properties of roots;
 - definition of a power with natural, integer and rational exponents, their properties;
 - concept of a power with a real exponent, properties of a power with a real exponent;
 - numerical intervals;
 - modulus (absolute value) of a real number and its properties.
-
- ratios, proportions;
 - fundamental property of a proportion;
 - definition of a percentage;
 - rules for performing calculations with percentages – finding the ratio of numbers as a percentage, percentage of a number, a number by the value of its percentage;
 - solving problems involving percentages and proportions.
-
- determining the domain of permissible values for variables in an expression with variables;
 - defining identically equal expressions, identical transformations of expressions, identities;
 - definition of a monomial and a polynomial;
 - rules for addition, subtraction and multiplication of monomials and polynomials;
 - abbreviated multiplication formulas;
 - factoring a polynomial;
 - definition of an algebraic fraction;
 - rules for performing operations with algebraic fractions;
 - definition and properties of a logarithm, decimal and natural logarithms;
 - fundamental logarithmic identity;
 - sine, cosine, tangent, cotangent of an arbitrary angle, radian measure of an angle; sine, cosine, tangent and cotangent of a number;
 - fundamental trigonometric identity and corollaries from it;
 - reduction formulas;
 - sine, cosine and tangent of the sum and difference of two angles, sine and cosine of a double angle, half-angle formulas; power reduction formulas;
 - transformations of a sum of trigonometric functions into a product and products into a sum;
 - expressing trigonometric functions in terms of the tangent of a half-angle;
 - transformations of trigonometric expressions.
-
- equation with one unknown, defining the root (solution) of an equation with one unknown; inequality with one unknown;
 - defining the solution of a system of equations with two unknowns and methods for their solution;
 - equivalent equations, inequalities and their systems;
 - methods for solving rational, irrational, exponential, logarithmic, trigonometric equations and inequalities;
 - using properties and graphs of functions in solving equations and inequalities, method of intervals, representation on the coordinate plane of the set of solutions to equations and inequalities with two variables and their systems.

- definition of a function, domain, range of a function, graph of a function;
 - methods for specifying functions, basic properties and graphs of the functions listed in the title of the topic;
 - transformations of graphs: parallel translation, symmetry relative to the coordinate axes and symmetry relative to the origin, symmetry relative to the line $y = x$, stretching and compression along the coordinate axes;
 - defining a function inverse to a given one;
 - definition of arithmetic and geometric progressions;
 - formulas for the n -th term of arithmetic and geometric progressions;
 - formulas for the sum of the first n terms of arithmetic and geometric progressions;
 - formula for the sum of an infinite geometric progression with common ratio $|q| < 1$.
-
- definition of the derivative of a function at a point;
 - physical and geometric meanings of the derivative;
 - equation of the tangent to the graph of a function at a point;
 - table of derivatives of elementary functions;
 - rules for finding the derivative of a sum, difference, product and quotient of two functions;
 - rule for finding the derivative of a composite function.
-
- sufficient condition for increase (decrease) of a function on an interval;
 - extrema of a function;
 - finding the greatest and least values of a function on a closed interval.
-
- definition of an antiderivative function, indefinite integral, definite integral, curvilinear trapezoid;
 - table of antiderivative functions;
 - rules for finding antiderivatives;
 - Newton-Leibniz formula.
-
- combinatorial rules of sum and product;
 - formulas for the number of permutations, combinations, arrangements;
 - classical definition of the probability of an event, simple cases of calculating the probability of a random event; statistical meaning of the probability of a random event;
 - probability of a sum of mutually exclusive events, probability of the opposite event, concept of independence of events, probability of a product of events;
 - defining the sample characteristics of a data series (sample range, mode, median, mean value);
 - graphical, tabular, text and other forms of representing statistical information.
-
- concepts of a point and a line, ray, segment, polyline, angle;
 - axioms of plane geometry;
 - adjacent and vertical angles, angle bisector;
 - properties of adjacent and vertical angles;
 - properties of an angle bisector;
 - parallel and perpendicular lines;
 - perpendicular and slant, perpendicular bisector, distance from a point to a line;
 - criteria for parallelism of lines;
- Thales' theorem, generalized Thales' theorem.
-
- circle, disk and their elements;
 - central, inscribed angles and their properties;

- calculation of angles with the vertex inside and outside the circle, the angle between a chord and a tangent;
 - properties of two intersecting chords;
 - tangents and secants to a circle and their properties.
-
- types of triangles and their basic properties;
 - criteria for equality of triangles;
 - median, bisector, altitude of a triangle and their properties;
 - theorem on the sum of the angles of a triangle;
 - triangle inequality;
 - midline of a triangle and its properties;
 - circumscribed circle of a triangle and inscribed circle of a triangle;
 - Pythagorean theorem, proportional segments of a right-angled triangle;
 - relations between sides and angles of a right-angled triangle;
 - law of sines;
 - law of cosines.
-
- quadrilateral and its elements;
 - parallelogram and its properties;
 - criteria for a parallelogram;
 - theorem on the sum of squares of the sides and diagonals of a parallelogram;
 - rectangle, rhombus, square, trapezoid and their properties;
 - midline of a trapezoid and its properties;
 - quadrilaterals inscribed in a circle and circumscribed about a circle, their properties and criteria.
-
- polygon and its elements, convex polygon;
 - perimeter of a polygon;
 - sum of angles of a convex polygon;
 - regular polygon and its properties;
 - polygons inscribed in a circle and circumscribed about a circle.
-
- length of a segment, circle and arc of a circle;
 - magnitude of an angle, measurement of angles;
 - perimeter of a polygon;
 - formulas for calculating the areas of a triangle, parallelogram, rhombus, square, trapezoid, regular polygon, disk, circular sector.
-
- rectangular coordinate system on a plane, coordinates of a point;
 - formula for calculating the distance between two points and formula for calculating the coordinates of the midpoint of a segment;
 - equation of a line and a circle;
 - concept of a vector, length of a vector, collinear vectors, equal vectors, coordinates of a vector;
 - decomposition of a vector into two non-collinear vectors;
 - addition, subtraction of vectors, multiplication of a vector by a number;
 - scalar product of vectors and its properties;
 - formula for finding the angle between vectors specified by coordinates;
 - conditions for collinearity and perpendicularity of vectors specified by coordinates.

- basic types and content of geometric transformations on a plane (motion, symmetry relative to a point and relative to a line, rotation, parallel translation, similarity transformation, homothety);
 - criteria for similarity of triangles;
 - ratio of areas of similar figures.
-
- axioms and theorems of solid geometry;
 - mutual arrangement of lines in space, a line and a plane in space, planes in space;
 - criteria for parallelism of lines, a line and a plane, planes;
 - parallel projection;
 - criteria for perpendicularity of a line and a plane, two planes;
 - projection of a slant on a plane, orthogonal projection;
 - direct and converse theorems on three perpendiculars;
 - distance from a point to a plane, from a point to a line, from a line to a plane parallel to it, between parallel lines, between parallel planes, between skew lines;
 - criteria indicating that lines are skew;
 - angle between lines, a line and a plane, planes.
-
- dihedral angle, linear angle of a dihedral angle;
 - polyhedrons and their elements, basic types of polyhedrons: prism, parallelepiped, pyramid, truncated pyramid;
 - solids and surfaces of revolution and their elements, basic types of solids and surfaces of revolution: cylinder, cone, truncated cone, ball, sphere;
 - sections of polyhedrons and solids of revolution by a plane;
 - combinations of geometric solids;
 - formulas for calculating the surface areas, volumes of polyhedrons and solids of revolution.
-
- rectangular coordinate system in space, coordinates of a point;
 - formula for calculating the distance between two points and formula for calculating the coordinates of the midpoint of a segment;
 - concept of a vector, length of a vector, collinear vectors, equal vectors, coordinates of a vector;
 - addition, subtraction of vectors, multiplication of a vector by a number;
 - scalar product of vectors and its properties;
 - formula for finding the angle between vectors specified by coordinates;
 - conditions for collinearity and perpendicularity of vectors specified by coordinates.

Demonstration material
testing in mathematics at entrance examinations

Variant 0

Part 1. Circle or underline the single correct answer.

1	Calculate $\left(\frac{5}{2} + \frac{2}{3}\right) : 3\frac{1}{6}$	A 1	Б 6	В 21	Г 3,5
2	Solve the inequality $x(x - 1) \geq 0$	A $(-\infty; 0] \cup [1; \infty)$	Б $(-\infty; 0] \cup [1; \infty)$	В $[0; 1]$	Г $(0; 1)$
3	Solve the equation $ 2x - 1 = 3$	A -1, -2	Б -1, 2	В 1, -2	Г 1, 2
4	Calculate $64^{\log_8 \sqrt{3}}$	A 1	Б 2	В 3	Г 9
5	Solve the equation $5^{2x+4} = 25$	A 0	Б -1	В 1	Г 2
6	Find the edge of a cube if its volume is equal to 27	A 6	Б 1	В 3	Г 9
7	Find the area of a right-angled triangle if its leg and hypotenuse are 6 cm and 10 cm, respectively.	A 24	Б 60	В 30	Г 16
8	Given vectors $\vec{a}(2; -3)$ and $\vec{b}(1; 2)$. Find the length of the vector $2\vec{a} + 3\vec{b}$	A 7	Б 5	В 4	Г 2
9	Find the value of the expression $\sqrt{3 - \sqrt{5}} \cdot \sqrt{3 + \sqrt{5}}$	A 6	Б 4	В 0	Г 2
10	Find $5\cos 2x$, if $\sin x = -0,3$	A -3	Б 4,1	В -1,5	Г 3

**GRADING SCALE AND MINIMUM NUMBER OF POINTS CONFIRMING
SUCCESSFUL PASSAGE OF THE ENTRANCE EXAMINATION**

The entrance examination in mathematics to Sevastopol State University in 2026 is conducted in the form of testing.

The examination paper contains 10 tasks, which differ in content and level of difficulty. The subject matter of the tasks covers all main sections of the mathematics program for secondary school (see "Entrance examination program for the general educational subject 'Mathematics'").

A task is considered solved if the **correct answer** is recorded in the column of the examination form designated for answers.

The conversion of the number of solved tasks into the test score is given in Table 1.

Number of solved tasks	Number of test points
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100

Applicants who have scored at least 40 points are admitted to participate in the competition.

LIST OF RECOMMENDED LITERATURE FOR PREPARATION FOR THE ENTRANCE EXAMINATION

The list of textbooks is approved by Order No. 38 of the Ministry of Education and Science of Russia dated 26.01.2016 "On introducing amendments to the federal list of textbooks recommended for use in the implementation of state-accredited educational programs of primary general, basic general, secondary general education, approved by Order No. 253 of the Ministry of Education and Science of Russia dated March 31, 2014".

In particular, the following literature is recommended for preparation for the entrance examination:

1. Algebra and fundamentals of mathematical analysis. 11th grade. Textbook. Basic and advanced levels. Federal State Educational Standard (FSES) / Yu.M. Kolyagin, M.V. Tkacheva, N.E. Fedorova. – Moscow: Prosveshcheniye, 2016. – 384 p.
2. Algebra and fundamentals of mathematical analysis. 10-11th grades. Basic and advanced levels. Textbook. FSES / A.Sh. Alimov, Yu.M. Kolyagin, M.V. Tkacheva. – Moscow: Prosveshcheniye, 2016. – 464 p.
3. Mathematics. Algebra and geometry. 11th grade. Basic and advanced levels. FSES / V.V. Kozlov, A.A. Nikitin, V.S. Belonosov, A.A. Nikitina. – Publishing house "Russkoye slovo", 2016. – 460 p.

4. Mathematics. Algebra and fundamentals of mathematical analysis, geometry. 11th grade. Basic level. FSES / A.G. Mordkovich, I.M. Smirnova. – Publishing house "Mnemosina", 2015. – 429 p.
5. Mathematics: algebra and fundamentals of mathematical analysis. Geometry. 10th grade. Basic and advanced levels. Textbook. FSES / I.M. Smirnova, V.A. Smirnov. – Publishing house "Mnemosina", 2015. – 112 p.
6. Mathematics: algebra and fundamentals of mathematical analysis. Geometry. 10—11th grades. Basic level. Textbook. FSES / I.M. Smirnova. – Publishing house "Mnemosina", 2015. – 223 p.
7. Mathematics. Algebra and fundamentals of mathematical analysis, geometry. Geometry. 10-11th grades. Basic level. Textbook. Vertikal. FSES / I.F. Sharygin. – Publishing house "Drofa", 2015. – 240 p.
8. Geometry 10 – 11th grades: textbook for general educational institutions: basic and profile levels / L.S. Atanasyan, V.F. Butuzov, S.B. Kadomtsev. – Moscow: Prosveshcheniye, 2009. – 255 p.
9. Geometry: textbook for 10 – 11th grades of general educational institutions / A.D. Aleksandrov, A.L. Verner, V.I. Ryzhik. - Moscow: Prosveshcheniye, 2006. – 240 p.
10. Algebra and fundamentals of mathematical analysis. 10-11th grades. Basic level. Textbook. FSES / A.Sh. Alimov, Yu.M. Kolyagin et al. – Moscow: Prosveshcheniye, 2012. – 464 p.