

Math & Russian

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Pre-Algebra 1 and 2 (grade 7 and 8) are two complete programs based on the highly successful M. P. Dolciani, Mathematics, Structure and Methods, Course 1 and 2, New edition textbook. These programs are designed to equip students with a strong foundation in algebra by focusing on mathematical understanding, logical thinking and mastering lifelong problem-solving skills. Each lesson has direct instructions and focuses on mathematical thinking with immediate application of new skills to problem solving. By encouraging students to solve problems in a variety of ways, these programs promote an understanding of the way mathematical processes work.

Programs architecture:

Pre-algebra 1.

1. Operations with whole numbers.
2. Using variables.
3. The decimal system.
4. Geometric figures.
5. Number theory.
6. Fractions.
7. Operations with fractions.
8. Solving equations.
9. Percent.
10. Areas and volumes.
11. Integers and graphs.
12. Statistics and probability.

Pre-algebra 2.

1. Introduction to algebra.
2. The decimal system.
3. Positive and negative numbers.
4. Rational numbers.
5. Equations and inequalities.
6. Geometry.
7. Ratio, proportion, and percent.
8. The coordinate plane.
9. Area and volumes.
10. Square roots and right triangles.
11. Probability.
12. Statistics.

The Integrated Mathematics, Course 2. Algebra 2, grade 10. This course is designed for students taking second-year algebra. It includes a review of skills from first-year algebra and all essential topics for a second-year course.

This program begins with a review of definitions of a postulational system of reasoning. As the need for proof develops, students study the laws of reasoning and logic proofs and how proofs are related in geometry. The whole program includes all traditional topics of Geometry course as:

1. Introducing Geometry.
2. Logic.
3. Proving Statements in Geometry.
4. Triangle congruence and inequalities.
5. Quadrilaterals.
6. Similarity and special triangles.
7. Coordinate Geometry.
8. Quadratic equations.
9. Locus.
10. Transformation Geometry.
11. Probability.
12. Mathematical systems.
13. Constructions.

Russian Language, 1-4, grades 8-12.

This course is designed for beginners and for students who have already learned the fundamentals of Russian language. The course aims at helping students to communicate with Russians, express their thoughts in Russian on the basis of the grammar and vocabulary studied, read, understand and retell simple texts; read with a dictionary and translate more difficult texts, prepare oral or written reports on any given theme.

The course also includes studying the history, geography, and culture of Russia.

Being taught by a Russian native speaker, students of this course master their best pronunciation, are exposed to the contemporary spoken Russian language, and enjoy Russian proverbs, sayings, and extracts from Russian poetry and songs.