



Mathematics I - Algebra

Department: Mathematics	Key of the matter: 701/708
Requirements: Have passed mathematics III of Middle School Mathematics	Year: First
Weekly load: 5	Date of elaboration April 2017

Topics

Unit 1

- 1.1 Definition of algebra.
- 1.2 Character of algebra and its difference with arithmetic.
- 1.3 Algebra notation.
- 1.4 Positive and negative quantities.
- 1.5 Absolute and relative value.
- 1.6 Arithmetic and algebraic quantities.
- 1.7 Algebraic nomenclature.
- 1.8 Classification of algebraic expressions.
- 1.9 Similar terms and reduction of similar terms.
- 1.10 Addition and subtraction of algebraic expressions.
- 1.11 Signs of grouping.
- 1.12 Multiplication and division of algebraic expressions.
- 1.13 Notable products and notable ratios.
- 1.14 Factorial decomposition.

Unit 2

- 2.1 Complete equations of first degree with an unknown.
- 2.2 Problems about equations in the first degree with an unknown.
- 2.3 Maximum common divisor.
- 2.4 Minimum common multiple.
- 2.5 Algebraic fractions Reduction of fractions.
- 2.6 Operations with algebraic fractions.
- 2.7 Fractional numerical equations of the first degree with an unknown quantity.
- 2.8 Problems about first degree fractional equations.
- 2.9 Inequalities.
- 2.10 Intermediate equations.



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- 2.11 Simultaneous equations of first degree with two unknowns.
- 2.12 Simultaneous first-degree equations with three unknowns.



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