Elements of the Progression of Learning in Secondary School

Mathematics

Secondary 1

Adapted from the **Progression of Learning in Secondary School: Mathematics**

Arithmetic

Understanding real numbers	
6. Represents, reads and writes numbers written in fractional or decimal notation	★
7. Approximates, in various contexts, the number under study (e.g. estimates, rounds off, truncates)	★
15. Compares and arranges in order a. numbers written in fractional or decimal notation	★

Understanding operations involving real numbers	
2. Fractions b. Uses an operation to represent a situation (use of different meanings of operations)	★
5. Looks for equivalent expressions: decomposing (additive, multiplicative, etc.), equivalent fractions, simplifying and reducing, factoring, etc.	★
6. Translates (mathematizes) a situation using a sequence of operations (no more than two levels of parentheses)	★
7. Anticipates the results of operations	★
8. Interprets the results of operations in light of the context	★

Operations involving real numbers	
4. Properties of divisibility b. Uses, in different contexts, the properties of divisibility: 2, 3, 4, 5 and 10	★
7. Computes, in writing, the four operations[1] with numbers that are easy to work with (including large numbers), using equivalent ways of writing numbers and the properties of operations a. numbers written in decimal notation, using rules of signs	★
8. Computes, in writing, sequences of operations (numbers written in decimal notation) in accordance with the order of operations, using equivalent ways of writing numbers and the properties of operations (with no more than two levels of parentheses)	★
9. Computes, using a calculator, operations and sequences of operations in accordance with the order of operations	★

1. Students use technological tools for operations in which the divisors or multipliers have more than two digits; however, for written computation, the understanding and mastery of the processes is more important than the ability to do complex calculations.

Understanding and analyzing proportional situations	
1. Calculates a. a certain percentage of a number	★

Geometry

Spatial sense and analyzing situations involving geometric figures	
A. Plane figures	
5. Recognizes and names regular convex polygons	★

Analyzing situations involving measurements [1]	
C. Angles	
5. Finds unknown measurements using the properties of figures and relations a. measures of angles in a triangle	★
D. Length	
3. Establishes relationships between b. measures of length of the international system (SI)	★

1. Depending on the context, measurement prefixes (e.g. *nano*, *micro*, *milli*, *deca*, *kilo*, *mega*, *giga*) are introduced.