Laval Junior Academy

Secondary 2 Course Outline

Students in the enriched class are not allowed to use a calculator for chapters 1-4.

Chapter 1: ALGEBRAIC EXPRESSIONS

- Review: Integers and order of operations
- Parts of an expression
- Identifies and combines like terms
- Simplifying algebraic expressions
- Evaluating algebraic expressions
- Multiplication of two variables (first degree only)
- Distributive property
- Division of algebraic terms by a constant
- Algebraic translation

Chapter 2: EQUATIONS

- Solving 1st degree equations
- Validates solutions by substitution
- Equation word problems – including dependence between unknowns
- Algebra in geometry – perimeter, area

Chapter 3: CIRCLES

- Identifying parts of a circle
- Finding circumference and area given radius or diameter
- Finding radius or diameter given circumference or area
- Calculating arc length from area of a sector and vice versa

Chapter 4: REGULAR POLYGONS

- Converting units of area
- Naming and identifying polygons
- Properties of regular polygons
- Finding the perimeter and area of a regular polygon
- Finding missing measurements

Chapter 5: PERCENT (Review)

- Understanding percent
- Finding percent of a number and the whole from percent – using the proportion

Chapter 6: PROPORTIONS

- Defining ratios and rates
- Equivalent ratios and rates
- Comparing ratios and rates
- Unit rate
- Concept of proportionality
- Recognizing a proportional situation from a graph, table, rule or word problem
- Solving proportional situations
- Finds the missing terms in a proportion
- Scale factor (positive) and scale drawings using map: real ratio
- Finds missing dimensions of similar figures (nested triangles)

Chapter 9: PROBABILTY

- Random experiment (simple and compound; replacement)
- Events (certain, probably, impossible)
- Sample space (set of possibilities)
- The counting principle (the number of possible outcomes)
- Experimental vs theoretical probability
- The probability of simple outcome
- The probability of a compound outcome

Chapter 8: SOLIDS

- Naming right cylinders, right prisms, right pyramids
- Finds the lateral area, area of base and total area
- Finds the missing measurements
- Finds the lateral area of decomposable solids*

Chapter 7: GRAPHS AND MODES OF REPRESENTATION

- Finds the rule from a problem or table of values (given a situation)
- Goes from one mode of representation to another
- Solves problems using the rule