Math Entrance Exam Requirements

Grade 4 to 5	**Understand the structure of Multi-digit Numbers :** Students should be able to: • Read and write numbers to one million • Compare multi-digit number • Round multi-digit number
	Addition and Subtraction strategies and Algorithms : Students should be able to: • Estimate sums or differences • Strategies to add a multi-digit number (Partial sums , place value, regrouping) • Strategies to add a multi-digit number (place value, adjusting, regrouping.) • Solve Multi-step problems involving addition and subtraction
	Multiplication as comparison: Students should be able to: • Use multiplication equations to represent multiplicative comparison statements • Represent additive and multiplicative comparison problems using bar diagrams and equations. • Represent multiplicative comparison with bar diagrams and multiplication equations • Represent multiplicative comparison with bar diagrams and division equations
	Multiplication strategies with multi-digit numbers : Students should be able to: • Use strategies involving basic facts, place value, and the associative property of multiplication to multiply by multiples of 10, 100, 1,000. • Use distributive property and array models to find products. • Use distributive property and area models to find products of 3- and 4- digit factors by 1- digit factor. • Use area models and partial products to multiply 2-digit factors. • Solve word problems with multi-step representations involving multiplication.
	Fraction Equivalence: Students should be able to: • Use fraction models and number lines to explain equivalent fractions • Use multiplication and division to generate equivalent fractions • Use number line representations and multiplication and division to generate equivalent fractions. • Compare fractions using benchmarks • Compare 2 fractions by generating equivalent fractions to create like numerators or like denominators

	Geometric figures (Students will need their geometric sets including rulers, and protractors.) Students should be able to: • Identify and classify polygons based on their attributes (number of sides, vertices, and angles) • Identify polygons based on their attributes. • Classify polygons (triangles, quadrilaterals, pentagons, hexagons, etc.) based on side lengths and angle properties • Identify special quadrilaterals (square, rectangle, rhombus, parallelogram, trapezoid) based on their attributes • Find missing angles in polygons using known angle relationships (e.g., triangle angle sum, quadrilateral angle sum) • Solve problems involving unknown angles in polygons using reasoning and known properties