

## **UNIVERSAL COLLEGE - ALEY**







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## **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  |
|              | Round multi-digit number   |
|              | Addition and Subtraction strategies and Algorithms :   |
|              | Students should be able to:  |
|              | Estimate sums or differences   |
|              | <ul> <li>Strategies to add a multi-digit number (Partial sums, place value, regrouping)</li> </ul>   |
|              | <ul> <li>Strategies to add a multi-digit number (place value, adjusting, regrouping.)</li> </ul>   |
|              | Solve Multi-step problems involving addition and subtraction   |
|              | Multiplication as comparison:  |
|              | Students should be able to:  |
|              | <ul> <li>Use multiplication equations to represent multiplicative comparison statements</li> </ul>   |
|              | <ul> <li>Represent additive and multiplicative comparison problems using bar diagrams and<br/>equations.</li> </ul>  |
|              | 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:  |
|              | <ul> <li>Use strategies involving basic facts, place value, and the associative property of</li> </ul>   |
|              | multiplication to multiply by multiples of 10, 100, 1,000.   |
|              | <ul> <li>Use distributive property and array models to find products.</li> </ul>   |
|              | <ul> <li>Use distributive property and area models to find products of 3- and 4- digit factors by</li> </ul>   |
|              | 1- digit factor.   |
|              | <ul> <li>Use area models and partial products to multiply 2-digit factors.</li> </ul>  |
|              | <ul> <li>Solve word problems with multi-step representations involving multiplication.</li> </ul>  |
|              | Fraction Equivalence: Students should be able to:  |
|              | <ul> <li>Use fraction models and number lines to explain equivalent fractions</li> </ul>   |
|              | <ul> <li>Use multiplication and division to generate equivalent fractions</li> </ul>   |
|              | <ul> <li>Use number line representations and multiplication and division to generate equivalent<br/>fractions.</li> </ul>                                    |
|              | <ul> <li>Compare fractions using benchmarks</li> </ul>   |
|              | <ul> <li>Compare fractions using benefitialitys</li> <li>Compare 2 fractions by generating equivalent fractions to create like numerators or like</li> </ul> |
|              | denominators   |
|              | Geometric figures (Students will need their geometric sets including rulers, and   |
|              |  |
|              | protractors.) Students should be able to:  |
|              |  |
|              | Identify points, line segments, and rays     Classify angles   |
|              | Classify angles     Draw and recovers angles   |
|              | Draw and measure angles  Understand parallel, perpendicular and intersecting lines.  |
|              | Understand parallel, perpendicular and intersecting lines.   |