

UNIVERSAL COLLEGE - ALEY



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Math Entrance Exam Requirements

Grade level Requirements **Knowing numbers:** Students should be able to: use different expanded forms of a decimal number. write the fractional form of a decimal and vice versa use powers of 10 to write a number in expanded notation. multiply and divide a decimal by 10, 100, 1000... Grade 6 to

7

Adding, Subtracting and Multiplying Decimals

Students should be able to:

- apply the order of operations to calculate (PEMDAS)
- express a multi-step problem in a single mathematical expression
- use the distributive property to calculate.

Dividing Decimals:

Students should be able to:

- dividing decimals by whole numbers
- dividing decimals by decimals
- understand and apply divisibility rules
- finding GCD and LCM
- prime Factorization

PEMDAS on Decimals:

Students should be able to:

- apply the order of operations on Decimals to calculate (PEMDAS)
- express a multi-step problem in a single mathematical expression
- use the distributive property to calculate.

Lines and straight lines:

Students must be able to:

- use the mathematical symbols to represent a straight line, segment and ray.
- constructing triangle knowing the lengths of its sides.
- identify the Isosceles triangle and the equilateral triangle from their sides.
- identify the median in a triangle (Centroid).

Perpendicular lines:

Students must be able to:

- drawing perpendicular lines and perpendicular bisector of a segment.
- identify a right triangle.
- construct the heights of a triangle and indicate the orthocenter.
- use the equidistance property of perpendicular bisectors (CIRCUMCENTER).

Fractions:

Students must be able to:

- finding different forms of a fraction (equivalent and irreducible)
- finding a common denominator for 3 fractions
- recognize a decimal fraction
- compare fractions with different methods.
- find the ratio of two quantities???

Adding and Subtracting Fractions:

Students must be able to:

- add and subtract fractions.
- apply the order of operations in calculating with fractions.

Multiplying and Dividing Fractions:

Students must be able to:

- multiply fractions/ Calculating fraction of a whole.
- divide fractions.

PEMDAS on Fractions:

- apply order of operation on fractions.
- solve word problems on PEMDAS.

Statistics:

Students should be able to:

- find the mean, median, range and mode of a data set
- draw dot plots and bar graphs to represent a given data.
- find frequency, relative frequency and cumulative frequency of a given data.

N.B: Please make sure you have a geometry set for the test.