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Math lab Kit Catalogue

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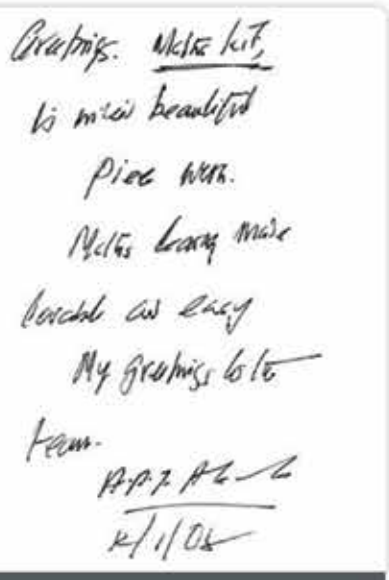
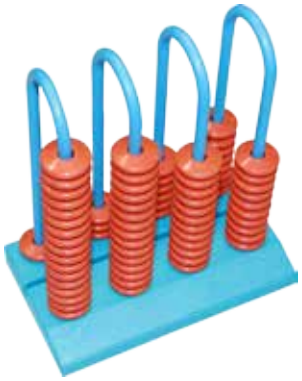


Dr. A.P.J. Abdul Kalam - President of India (12.01.2005)

KC 0001 • Abacus - 4 Spikes

- Reading & representing numbers upto 4 digits
- Number before, after & in between
- Biggest and smallest numbers upto 4 digits
- Face value & place value of 4 digits
- Expanded notation
- Addition upto 4 digits with changing (carrying)
- Subtraction upto 4 digits with changing (borrowing)



KC 0002 • Abacus - 7 Spikes

- Reading & representing numbers upto 7 digits
- Indian & International system of numbers
- Biggest and smallest numbers upto 7 digits
- Face value and Place value of 7 digits
- Expanded notation
- Addition upto 7 digits with changing (carrying)
- Subtraction upto 7 digits with changing (borrowing)
- Four operations of decimal numbers
- Metric conversions
- Addition & subtraction of metric values

KC 0007 • Algebraic Expression - Board

KC 0008 • Algebraic Expression - Tiles

- Used to visualize algebraic expressions of one or two variables
- To understand all four operations of algebraic expressions
- To do factorization

KC 0011 • Area Circle

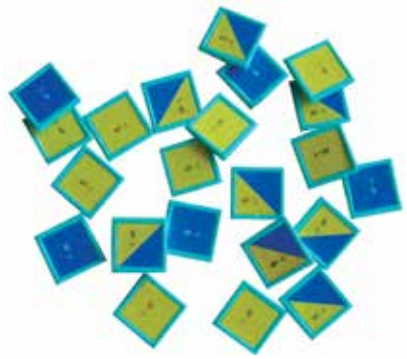
- To derive the formula for finding the area of a circle.

KC 0012 • Area Concepts

- Approximate area of an irregular geometrical figure
- Derive the formula to find area of a rectangle and a square
- Derive the formula to find perimeter of a rectangle and a square
- Form squares and rectangles with the same perimeters
- Form squares and rectangles with the same area
- Form retangles with the same area, but different perimeter
- Form rectangles with the same perimeter, but different area

KC 0013• Area Parallelogram

- To find the area of a parallelogram by transforming it into a rectangle by suitable dissection



KC 0014 • Area Pathway

- To form and find the area of straight pathways
- To form and find the area of criss cross pathways
- To form and find the area of rectangular pathways

KC 0015 • Area Polygons

- To find the area formula of any regular polygon

KC 0018 • Area Segment

- To visualize and derive a general formula to find the area of a segment

KC 0019 • Area Trapezium

- To derive the formula for finding the area of a trapezium

KC 0020 • Area Triangle

- To understand and derive the formula for the area of all types of triangles

KC 0022 • Base Ten

- To understand basic operations of addition, subtraction, multiplication and division of three digit numbers
- To understand place value & face value of decimal numbers
- To do basic operations of decimal numbers

KC 0023 • Base Ten Mat

- To keep base ten material

KC 0024 • Basic Proportionality

- To visualize and understand the basic proportionality theorem

KC 0054 • Circle - Check Small

- To identify a perfect circle, its diameter and centre

KC 0055 • Circle - Chord Angle

- To visualilze and compare the angles formed at the centre of a circle by equal and unequal chords

KC 0056 • Circle - Chord Bisector

- To visualize and study the properties of chord bisector

KC 0057 • Circle - Chord Distance

- To compare the perpendicular distance of equal and un-equal chords

KC 0058 • Circle - Concentric

- To visualize and understand the property of concentric circles
- To find the areas of the circular pathway

KC 0059 • Circle - Intersecting Chords

- To visualize intersecting chords
- To visualize the property of the triangles formed by sectors of the intersecting chords

KC 0062 • Circle - Subtending angles

- To find the relation between the subtended angle made by an arc at the centre and circumference of circle
- To find the relation between the angles subtended by two arcs on the circumference of the circle

KC 0052 • Circle angle in two segments

- To visualize and verify that angle in a semi circle is a right angle
- To verify that angle in a major segment is an acute angle
- To verify that angle in a minor segment is an obtuse angle

KC 0060 • Circle Parts

- To visualize and understand the parts of a circle

KC 0061 • Circle Segment Classification

- Segments of various size
- Identify semicircle, major and minor segment

KC 0065 • Clock with Time Cards

- To understand the relation between hour, minutes and seconds
- To visualize and understand the time in 24 hour clock

KC 0066 • Colour Cubes

- To enable students to visualize and draw the different views of 3 D shapes namely cube and cuboids

KC 0067 • Complementation

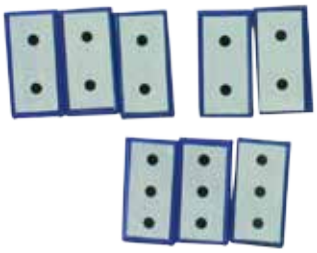
- To find a number before and number after (below 10)
- To visualise & find complements of numbers below ten

KC 0071 • Coordinate Board with Pins

- Used with co-ordinates - cards & pins
- To understand the quadrant, abscissa & ordinate
- To plot the given points
- To read the plotted points
- To find the distance between the two points
- To find the slope of the line
- To find the area of a regular polygon
- To understand slide, reflection and rotation of a geometrical shape of two dimension

KC 0079 • Cube Root

- To find the cube root of natural perfect cube numbers
- To find the cube of a number

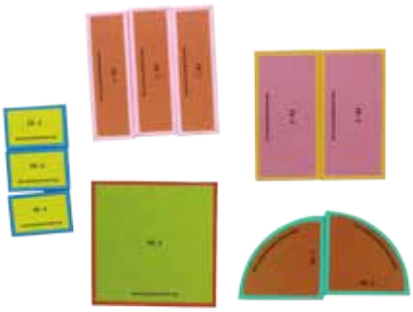


KC 0089 • Dot Rectangles

- To visualize the meaning of multiplication
- To make patterns

KC 0093 • Fraction - Basic

- To represent the fraction with different (shapes) wholes



KC 0094 • Fraction - Circle

- To visualize the types of fractions
- Unit fraction
- Proper fractions
- Equivalent fractions
- Like & unlike fractions
- Improper fractions
- Mixed fractions

KC 0075 • Cube - 15 (Cube 27)

- To form different composite solid figures

KC 0095 • Fraction - Discrete

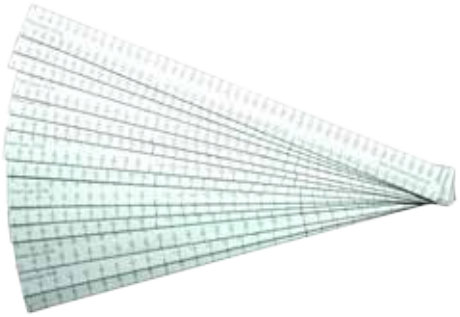
- To represent and explain fraction in discrete situation

KC 0098 • Fraction - Square

- To visualize the types of fractions in a continuous situation
- To visualize adddition and subtraction of like fractions
- To find the simple equivalent fractions

KC 0099 • Fraction Scale

- To order fraction
- To add & subtract like fractions
- To convert improper into mixed fractions and vice versa

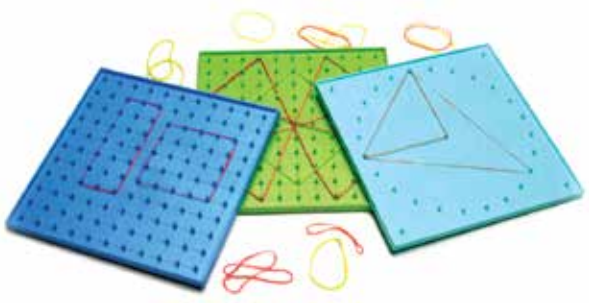


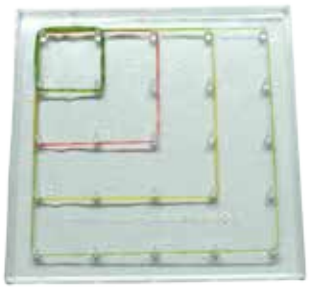
KC 0101 • French Curves

- It is used to draw curved line joining one or more points

KC 0103 • Geo Board - 11

- To reinforce all circle properties
- To form regular & irregular geometrical shapes
- To find the area of regular and irregular geometrical shapes
- To find the triangular & square numbers





KC 0104 • Geo Board - 5

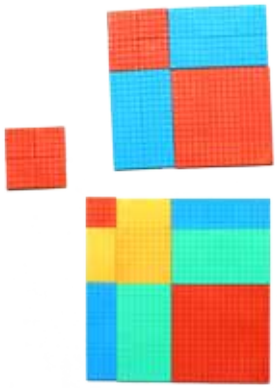
- To visualize row and column
- To visualise line segments and co-linear points
- To form shapes

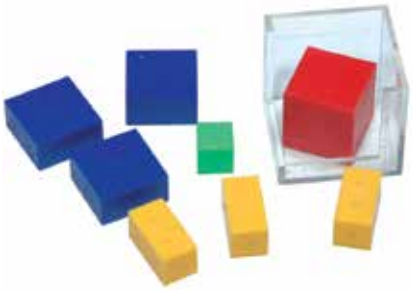
KC 0107 • Geometry - Angles

- To form regular and irregular shapes
- To understand types of angles
- To visualize complimentary and supplementary angles
- To prove triangle inequality

KC 0109 • Identities - 2 D

- To visualize identities in relation to areas of square and rectangle
- $(a \pm b)^2$
- $(a + b + c)^2$
- $a^2 - b^2$





KC 0111 • Identities - 3 D

- $(a + b)^3$
- $(a - b)^3$

KC 0114 • Integer Board - Set

- Addition of integers
- Subtraction of integers by both reversal & removal method
- Multiplication of integers
- Division of integers

KC 0117 • Integer Scale

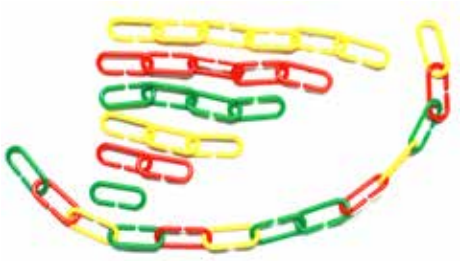
- Addition of integers using number line concept
- Subtraction of integers using number line concept

KC 0119 • Irrational Numbers

- To draw a real number line
- To form a square root spiral

KC 0123 • Linear Equation Scale - Set

- To understand the beauty of transposition in solving linear equation with one variable using a balancing template and colour coded hexagonal tokens



KC 0124 • Links

- To make patterns
- To understand the concept of equal and not equal
- To understand the concept of longer and shorter

KC 0130 • Making tens 2 sets
KC 0127 • Making tens board

- To build two digit numbers
- Find number before and after
- To represent a number in two different ways

KC 0144 • Net - Pyramid & Hollow Cylinder

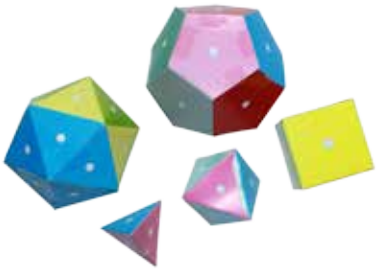
- To find lateral surface area and total surface area of hollow cylinder and pyramid

KC 0141 • Nets - Cone & Cylinder

- To find the surface area and total surface area of the cone & cylinder

KC 0142 • Nets - Cube & Cuboid

- To find the surface area and total surface area of cube & cuboids



KC 0143 • Nets - Platonic Solids

- To verify Euler's formula

KC 0147 • Number Bowl - Set

- To introduce addition and subtraction

KC 0149 • Number line scales

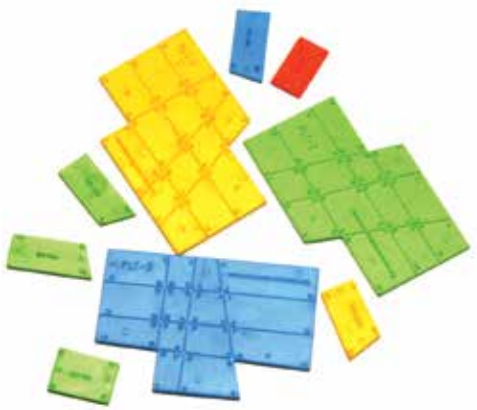
- To read a number on a number line
- To do addition and subtraction of small numbers

KC 0152 • Pallankuzhi - Set

- To do division by equal distribution, equal grouping, repeated subtraction
- To understand ratio and proportion
- To understand the concept of direct and inverse variation
- To do all four operations of fractions

KC 0153 • Parallelogram Properties

- To visualize and understand diagonal properties of a square, rhombus, rectangle and parallelogram

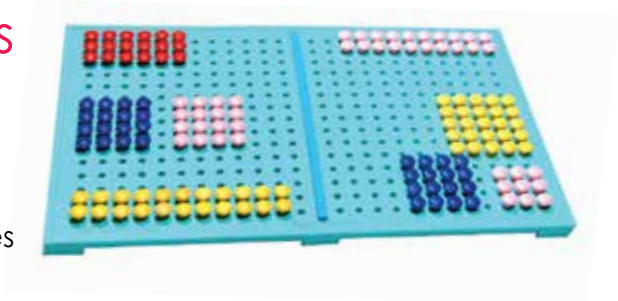


KC 0154 • Parallels & Transversals

- To show angles made by a transversal on parallel lines
- Properties of the angles formed by the transversal on a parallel line
- Identifying parallel lines
- Properties of two lines which are parallel to a third line
- Properties of two lines which are perpendicular to a same line

KC 0156 • Peg Board with Pegs

- To identify prime and composite numbers
- To visualize and find the LCM
- To visualize and find the GCD
- To understand the concept of factors and multiples
- To visualize prime factorization



KC 0163 • Pi - Finder

- To find the circumference of a circle.
- To find the value of pi

KC 0164 • Place Value - 2 digit set

- To understand the place value
- To represent a two digit number
- To do addition and subtraction of two digit numbers

KC 0166 • Polygon - Angles

- To derive a general formulae to find the interior and exterior angles of polygons

KC 0167 • Polynomial

- To visualize and find the product of
  - Monomial x Binomial
  - Monomial x Trinomial
  - Binomial x Binomial
  - Binomial x Trinomial
  - Trinomial x Trinomial

KC 0168 • Pythagoras Theorem

- To visualize and prove pythagoras theorem through different approaches

KC 0172 • Quadrilateral - Cyclic

- To visualize the two properties of cyclic quadrialateral

KC 0173 • Quadrilateral - Types

- To visualize and classify quadrilaterals

KC 0174 • Reflection Symmetry

- Find line of symmetry
- To understand symmetry

KC 0176 • Rotational Symmetry

- It is used to identify the order of symmetry of geometrical shapes and thus understand rotational symmetry

KC 0177 • Rupees - Coins

KC 0178 • Rupees - Notes

- To identify and sort coins according to denomination
- To help in understanding money transaction
- To identify and sort notes according to denomination

KC 0179 • Similarity

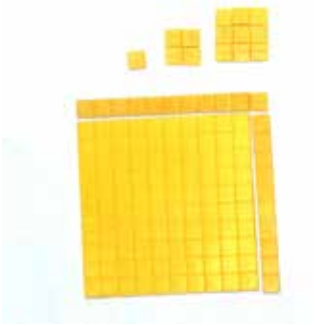
- To visualize and find properties of similar triangles and similar rectangles

KC 0180 • Skip Counting Scale - Set

- To do skip counting of numbers
- To do addition & subtraction of numbers

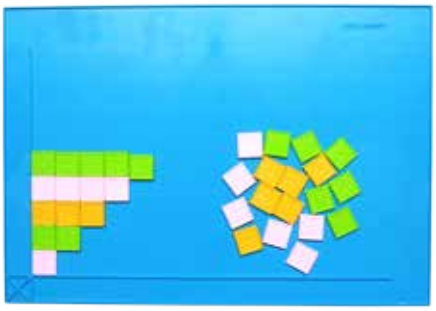
KC 0189 • Square Root

- To find the square root of a perfect square number
- To find square of a number



KC 0190 • Summation

- To find the sum of odd and even consecutive natural numbers
- To find the sum of first 'n' square numbers



KC 0191 • Table - Ones

- To understand the concept of multiplication
- To build multiplication tables upto 9
- To visualize commutative property
- To understand zero concept

KC 0192 • Table - Tens & Hundreds

- To do 2 & 3 digit multiplication

KC 0193 • Tangent Board - Set

- To visualize the types of angles.
- To visualize complementary and supplementary angles
- To visualize the properties of tangents in a circle

KC 0233 • Tangram

- To form different shapes

KC 0195 • Time Line Scale

- To understand the 24 hour time or railway time
- To convert 24 hour time into a.m. or p.m.

KC 0215 • Triangle - Classification

- To classify triangles based on angles
- To classify triangles based on sides
- To prove the angle sum property of a triangle
- To find the relation between exterior angle and sum of two interior opposite angle of a triangle
- To prove that angle opposite equal sides are equal
- To visualize the midpoint theorem

KC 0220 • Trigonometric Ratios

- To find trigonometric ratios of special angle

KC 0222 • Unit Cubes

- To find the volume of cube and cuboid
- Used as weights to weigh

KC 0223 • Volume Cone

- To understand the volume of a cone

KC 0224 • Volume Cube

- To derive a general formula to find the volume of a cube

KC 0225 • Volume Cuboid

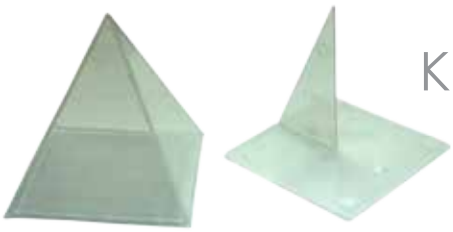
- To derive a general formula to find the volume of a cuboid

KC 0226 • Volume Cylinder

- To understand the volume of a cylinder

KC 0228 • Volume Hollow Cylinder

- To find the volume of a hollow cylinder

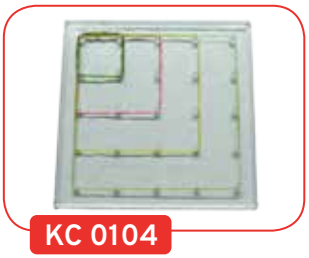


KC 0230 • Volume Pyramid

- To understand the volume of a pyramid

Math Kit Nursery & KG

5 x 5 Transparent Geo Board



- Shapes

Abacus 4 Spikes

- Reading 2 Digit Numbers
- Comparision

Attribute Block

- Sorting according to colour, shapes & thickness

Beads

- Beads - Round, Cylindrical Saturn Big, Medium & Small
- Counting
- Patterns

Block Circle

- Identifying colours.
- Making colour patterns
- Tall, Short

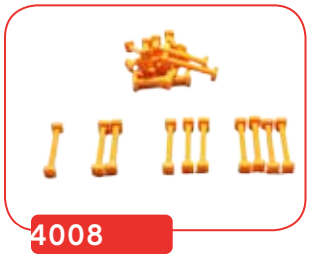
Block Square

- Identifying Numerals & Forming Numbers

Clock with Time Cards

- Time

Counters



- Counting

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Dice

KC 1007

- Numeration Games

Dot Rectangles

KC 0089

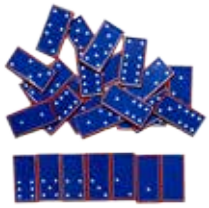
- Repeated Addition
- Number Patterns

Double Nine Dominoes

KC 3004

- Number Matching
- Number Games

Double Six Dominoes



KC 3004

- Number Matching
- Number Games

Linking Cubes

KC 1000

- Tall, Short
- Construction
- Addition, Subtraction

Links

KC 0124

- Long, Short
- Measurement
- Colour Patterns

Number Peg Scale

KC 3010

- Number Recognition
- Positional Numbers

Number Plates

KC 4018

- Counting
- Numeral - Number Matching

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Pattern Blocks

KC 1011

- Copying & Forming Patterns

Peg Board with Data Pegs

KC 4020

- More, Less, Before, After

Sorting Kit

KC 4021

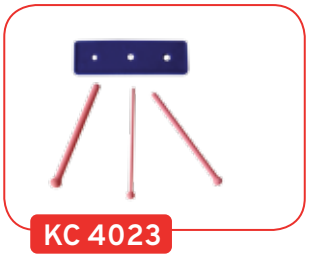
- Sorting by Colour
- Sorting by Size
- Sorting by Weight

Tens Frame

KC 0127 & 0130

- Making Tens
- 2 Digit numbers
- Before & After Numbers

Thick & Thin



KC 4023

- Sort by Thickness

Token (Circle, Square & Hexagon)

KC 4024

- Counting & Patterns
- Sorting by Attributes
- Addition, Subtraction

Flash Cards (Numbers & Names)

KC 4013

Number Chart

KC 4016

Add On Materials

2D Shapes

KC 1001

3D View
(Composite Cube)

KC 1002

Attribute Blocks

KC 1003

Circle - Angle in a Segment

KC 1004

Circle - Angle in a Semicircle

KC 1005

Clinometer

KC 1006

Dice

KC 1007

Fraction Rods

KC 1008

Fun Fraction

KC 1009

Linking Cubes

KC 1000

Pattern Blocks

KC 1011

Quadrilateral Angle Sum

KC 1012

Quadrilateral Area

KC 1013

Spinner

KC 1014

Triangle Centres (4)

KC 1015

Volumetric Set (17)

KC 1016

Arithmetic Progression - Tiles

KC 1017

TLMs

KC 2001	Flash Cards (Numbers / Names)
KC 2002	Geared Clock
KC 2003	Measuring Balance (Hand)
KC 2004	Measuring Balance (Table)
KC 2005	Measuring Jar Set
KC 2006	Measuring Scale / Tape
KC 2007	Probability Kit
KC 2008	Roll up Graph Chart
KC 2009	Roman Number Kit
KC 2010	Teachers' Geometry Box

Math Expo Materials

Area Pathway

KC 3001

Area Polygon

KC 3002

Brahma's Tower

KC 3003

Double 6 and 9 Dominoes

KC 3004

Exponents

KC 3005

Geometric Limit

KC 3006

Mystery Square Puzzle

KC 3007

Net Platonic Solids

KC 3008

Net Pyramid, Prism, Cylinder

KC 3009

Number Peg Scale

KC 3010

Peg Board Puzzle

KC 3011

Pentiminoes

KC 3012

Right Triangle Puzzle

KC 3015

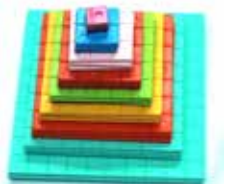
Soma Cube

KC 3016

Spinner

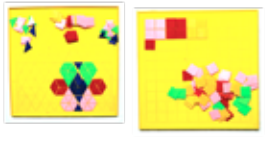
KC 1014

Square Angle Connection



KC 3018

Tiles & Board For Tessallation



KC 3019

Plastic Mirror

KC 3013

Puzzle Boards

(10 Numbers)

KC 3014

kitsoon math lab

List of Display Boards

No	Board Name
B/1	Equivalent Fraction
B/2	Number System
B/3	Proper Fraction
B/4	Fraction
B/5	Improper & Mixed Fraction
B/6	Line, Ray & Segment
B/7	Quadrilateral Types
B/8	Types of Angles
B/9	Identity
B/10	Conic Sections
B/11	Magic Square 3 x 3
B/12	Prime Magic Square
D/1	The Number Line
D/2	The Real Number Line
D/3	Arithmetic Progression
D/4	Algebraic Identity
D/5	Area of a Circle
D/6	Area of a parallelogram
D/7	Relationship between Volumes
D/8	Pythagoras Theorem
D/9	Incentre of a Triangle
D/10	Circumcentre of a Triangle
D/11	Orthocenter of a Triangle
D/12	Centroid of a Triangle
D/13	Trigonometric Ratios
D/14	Graph of circular functions
D/15	Graph of circular functions
D/16	Graph of circular functions
D/17	Set Notations
D/18	Segment Classification
D/19	Sector Area
D/20	Segment Area
D/21	Angle Sum Property of a Quadrilateral
DD/1	Binary Board
DD/2	Base '5' Board
DD/3	Simple Linear Equation
DD/4	Metric Conversion Board
DD/5	Complementary & Supplementary Angles

No	Board Name
DD/6	Triangle Properties - 1
DD/7	Triangle Properties - 2
DD/8	Parallel Lines
DD/9	Transversals
DD/10	Rotational Symmetry
DD/11	Mid Point Theorem - Triangle
DD/12	Mid Point Theorem - Quadrilateral
DD/13	Central Angle Theorem
DD/14	Chord Bisector Theorem
DD/15	Properties of equal chords
DD/16	Properties of unequal chords
DD/17	Semicircle Property
DD/18	Intersecting Chords
DD/19	Pythagoras Theorem
DD/20	Platonic Solids
GMC/1	Srinivasa Ramanujan
GMC/2	Carl Friedrich Gauss
GMC/3	Pythagoras
GMC/4	Euclid
GMC/5	Archimedes
GMC/6	Blaise Pascal
GMC/7	Rene Descartes
GMC/8	Aryabhata
GMC/9	Leonhard Euler
GMC/10	Augustin Louis Cauchy
GMC/11	Rafael Bombelli
GMC/12	John Napier
GMC/13	Abu Ja'far Muhammad Ibn Musa Al-Khwarizmi
GMC/14	Pierre De Fermat
GMC/15	Cheg Da Wei
GMC/16	William Oughtred
GMC/17	Bhaskara
GMC/18	Brahmagupta
MI/1	Math in Flower
MI/2	Math in Plants
MI/3	Math in Fruits
MI/4	Math in Seashells
MI/5	Math in Genes

No	Board Name
MI/6	Math in Dance
MI/7	Math in Music
MI/8	Math in Kolam
MI/9	Math in Ancient Architecture
MI/10	Math in Modern Architecture
MI/11	Math in Deep Wells
MI/12	Math in Pyramid
MI/13	Math in Beauty
MI/14	Math in Time
MI/15	Math in Puzzles
MI/16	Math in Play Ground
MI/17	Math in Comparison
MI/18	Math in Illusion
MI/19	Math in Innovation
TST/1	Strange Number
TST/2	Surprising Six
TST/3	Most Five Numbers
TST/4	Numeric Palindrome
TST/5	Without 8
TST/6	Number 2159
TST/7	Sequential 8's with 9
TST/8	Sequential Inputs of 9
TST/9	Sequential Inputs of Numbers with 8
TST/10	Sequential 1's with 9
TST/11	Power Cubes
TST/12	Beautiful Number Relationship
TST/13	Strange Equalities
TST/14	Unusual Number Relationship
TST/15	Amazing Number
TST/16	A Mathematical Game with Magical Property
TST/18	Mysterious Number 22
TST/20	கப்ரேக்கரின் 6174 எண்ணின் கோட்பாடு
TST/21	The Prime Number trick
TST/23	Calender Magic....
TST/24	நாள்காட்டி - '20' எண்கள் தந்திரம்
TST/25	Palindrome Number
TST/27	Kaprekar Number 6174 Theory
TST/28	Application of Triangular Numbers

No	Board Name
TST/33	காலவாய்பாடு / தெறிப்பு அளவை
TST/36	Make a Big Tetrahedron
TST/37	Soma Cube Puzzle
TST/38	Tower of Brahma - Puzzle
TST/39	Timely Facts
TST/40	Big Numbers
TST/41	Creativity of Ramanujan - 1
TST/42	Creativity of Ramanujan - 2
TST/43	Creativity of Ramanujan - 3
TST/44	Creativity of Ramanujan - 4
TST/45	Addition
TST/46	Prime & Composite Numbers
TST/47	Prime Factorization
TST/48	Integers Addition
TST/49	Integers Subtraction

Posters with Activity

No	Board Name
PA/1	Area of Linear Geometrical Shapes
PA/2	Tessellating Tiles
PA/3	The Quadrilateral Family
PA/4	The Story of Numbers - 1
PA/5	The Story of Numbers - 2
PA/6	Puzzling Patterns with Pascal's Triangle
PA/7	Perimeter and Area

Math Lab Manipulative

Level Wise Packages	Grade Wise Packages
Classes 1 to 10	Grade - 1
Classes 1 to 8	Grade - 2
Classes 1 to 5	Grade - 3
Classes 6 to 8	Grade - 4
Classes 6 to 10	Grade - 5
Classes 9 & 10	Grade - 6
Nursery & KG	Grade - 7
	Grade - 8
Also available Special packages for Govt. Schools	Grade - 9
	Grade - 10

Math Lab Work Books
One book each for grade 1 - 10

Display Boards & Posters
Digital Printed - 130 Nos.
Posters (6, 7 & 8) - 6 Nos.
Other Charts

Math Lab Furniture
Teacher's Table (1200mm x 500mm)
Teacher's Chair (Revolving Type)
Student's Table (900mm x 900mm)
Student's Chair (Revolving Type)
Storage Cabinet (900mm x 800mm x 400mm)
Green Ceramic Board (1200mm x 1200mm)
White Board (1200mm x 1500mm)
Notice Board (900mm x 1200mm)

My Own Manipulative
Skip Counting Scale: 4 - 6 Years
Pallankuzhi: 4 Years & above
Abacus - 4 Spikes: 7 - 9 Years
Abacus - 7 Spikes: 9 - 12 Years
Integer Board Set: 10 - 12 Years
Net Platonic Solids: 13 - 14 Years

Creative Lab
Cuboro Standard
Kapla - 250 pieces
Cuboro Creative Thinking Book

Other Materials
Add on Materials
Math Expo Materials
TLM's
Kreeda Traditional Games

Concepts are
CAUGHT NOT
TAUGHT!

KITS & CONCEPTS

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