

**Sri – Om**  
**VEDIC MATHEMATICS AWARENESS YEAR**

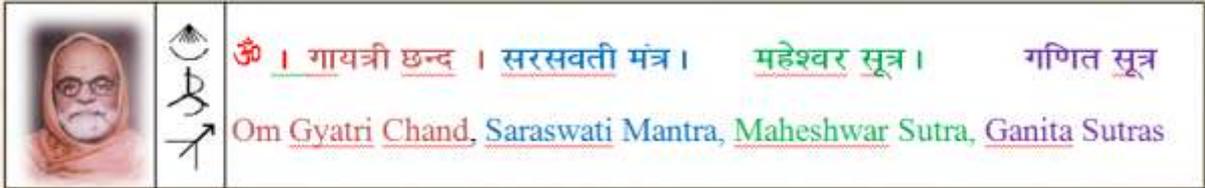
**E-Newsletter Issue no 187 dated 12-05-2015**

(Organizers Dr. S. K. Kapoor, Sh. Rakesh Bhatia, Sh. Bhim Sein  
Khanna,

Sh. Deepak Girdhar, Sh. Gourav Budhiraja)

For previous issues and further more information visit at

[www.vedicganita.org](http://www.vedicganita.org)



**Vedic Mathematics,**  
**(Sunlight format Mathematics)**  
**Concepts of Transcendence**  
**Mathematics of Creators space**

### 3-Space VMS & T

1

Cube as Hyper cube-3

1. 3-space Vedic Mathematics science and technology is a complete Discipline in itself.
2. One way to approach this Discipline is to initiate along the format of hyper cube-3.
3. This format is parallel to format and features of four fold manifestation layer (2,3,4,5)/2-space as dimension, 3-space as boundary, 4-space as domain, 5-space as origin) of hyper cube-4.
4. With it, hyper cube-4 plays the role of manifestation format of cube as hyper cube-3.

5. This as such amounts to manifestation of cube within creator's space (4-space).
6. The summation value of quadruple artifices (2,3,4,5) comes to be  $2+3+4+5=14$  this summation value ( $2+3+4+5=14$ ) is parallel to TCV (घन)= 14.
7. One may have a pause here and take note that the simple English rendering of this formulation (घन) is 'Cube'.
8. One shall sit comfortably and permit the transcending mind to be face to face with these features of the manifestation format of 'Cube'.
9. One may further have a pause here and take note that Vedic Systems (Systems of Vedic Mathematics science and technology concentrate upon the format of manifestation provided by creator's space (4-space).
10. One may further have a pause here and take note that 4-space is a spatial order space (2-space plays the roll of dimension of 4-space).
11. As such linear order setup of 3-space deserves to be approached along spatial order format.
12. It is this feature of manifestation which makes cube as hyper cube-3.
13. It would be relevant to note that hyper cube-3 is a fourfold setup (1,2,3,4)/(1-space as dimension, 2-space as boundary, 3-space as domain, 4-space as origin).
14. Further have, It would be relevant to note that 4-space plays the role of origin of 3-space.
15. With it, the origin being of a spatial order, as such the manifestation features of cube emerge to be of re-manifestation format.
16. One may have a pause here and well comprehend this 're-manifestation features'.
17. The re-manifestation features means that first manifestation is to be along first dimension of the spatial order and its re-

manifestation would be their along the second dimension of the spatial order.

18. With it, there emerges is spatial format for the linear dimension, further, it makes manifestation of cubes within cubes.
19. It is this feature of re-manifestation of the setup of cube as hyper cube-3 along the spatial order manifestation format within creator's space (4-space) which deserves to be comprehended well.
20. It shall be comprehended well for its proper application and through imbibing.
21. It is with proper appreciation and through imbibing of this re-manifestation feature that one may acquire deep insight about the setup of the cube.
22. It is in terms of this deep insight that one can have enlightened vision of this re-manifestation format of creations within our solar universe.
23. It is further as that, it is only with such enlightened vision of creation's of our solar universe that one may be face to face with the phenomena of 'Kshetra and Kshtragra'

### Kshetra and Kshtragra

(Field and knower of field)

24. Kshetra and Kshtragra (Field and knower of field) are two different but inter-related concepts.
25. The formulation Kshetra is of TCV value '19'.
26. This value (19) is parallel to the placement value of southern Hemisphere.
27. The formulation Kshtragra accepts TCV value (11).
28. This value (11) is parallel to the value of 11 geometrics of 5-space.
29. Further, value 19 is parallel to TCV value of formulation Krishna.
30. The value 11 is parallel to 11 Rudras (Incarnations of Lord Shiv).

31. The transcendental (Dynamic state) value of formulation Kshetra is  $19 + 13=32$ .
32. The transcendental (Dynamic state) value of formulation Kshtragra is  $11 + 13=24$ .
33. The artifices pair (32,24) is parallel to (8x4,8x3), which is further parallel to (four quarters, three quarters) format.
34. The summation value  $32 + 24 =56$ .
35. Further as that (54,56) constitutes a format parallel to (Sun, Light), which is further parallel to (Dimension fold, Domain fold).
36. The value  $54 = 12 + 13 + 14 + 15$  is parallel to quadruple artifices setup (12,13,14,15) which further is parallel to four fold manifestation layer (12,13,14,15) of Hyper cube-14.
37. Further  $56 = 4 \times 14$ .
38. One may have a pause here and take note that artifice 14 and parallel to it 14-space accepts four different roles along  $4 \times 4$  format as under:
- |    |    |    |    |
|----|----|----|----|
| 11 | 12 | 13 | 14 |
| 12 | 13 | 14 | 15 |
| 13 | 14 | 15 | 16 |
| 14 | 15 | 16 | 17 |
39. One may have pause here and take note that the total summation value of all the fourth rows/columns quadruples of artifices values comes to be  $50+54+58+62=224=112+112=(56+56)+(56+56)=(56+56+56+56) = (28+28)+ (28+28+28+28)$ , which parallel to eight fold Brham.
40. One shall have a pause here and take note that the formulation Kshetra and kshetragra deserve to be chased as 'Field' and 'Knower of the field'.
41. However, before that one shall be face to face with the feature of the setup of the cube, of which promenade are:

## Features of Cube and space caged within cube

42. Basic Geometric formats
  - i). Point
  - ii). Line
  - iii). Surface
  - iv). Solid
  - V). Hyper Cube format
43. Basic Structured geometric formats
  - i). Point body of 3-space content
  - ii). Line of 3-space content points
  - iii). Surface of 3-space content lines
  - iv). Solids of 3-space content surfaces
  - V). Hyper format of 4-space content
44. Basic Units
  - i). Length
  - ii). Area
  - iii). Volume
  - (iv). Hyper unit of spatial order
45. Representative regular body of 3-space
  - i). Cube is the representative regular body of 3-space.
  - ii). sphere is another representative regular body of 3 space.
46. Representative regular bodies of 1,2,3 spaces.
  - i). Interval is the representative regular body of 1-space
  - ii). Square is the representative regular body of 2-space
  - iii). Cube is the representative regular body of 3-space.
  - iv). Circle is the representative regular body of 2-space.
  - V). Sphere of the representative regular body of 3-space.
47. Domain-Boundary ratios formulation
  - i). of 1-space is  $A^1$ : is to  $2 A^0$
  - ii). of 2-space is to  $II A^2$ :  $4 A^1$
  - iii of 2-space is to  $II A^3$ :  $6 A^2$
48. Four folds of Hyper cube-1
  - i). (-1) Space plays the role of dimension fold.

- ii). 0-space plays the role of boundary fold.
  - iii). 1-space plays the role of domain fold.
  - iv). 2-space plays the role of origin fold.
49. Four folds of Hyper cube-2
- i). (0) Space plays the role of dimension fold.
  - ii). 1-space plays the role of boundary fold.
  - iii). 2-space plays the role of domain fold.
  - iv). 3-space plays the role of origin fold.
50. Four folds of Hyper cube-3
- i). 1 Space plays the role of dimension fold.
  - ii). 2-space plays the role of boundary fold.
  - iii). 3-space plays the role of domain fold.
  - iv). 4-space plays the role of origin fold.
51. Four folds of Hyper cube-4
- i). 2 Space plays the role of dimension fold.
  - ii). 3-space plays the role of boundary fold.
  - iii). 4-space plays the role of domain fold.
  - iv). 5-space plays the role of origin fold.
52. Four folds of Hyper cube-N
- i). (N-2) Space plays the role of dimension fold.
  - ii). (N-1)-space plays the role of boundary fold.
  - iii). N-space plays the role of domain fold.
  - iv). (N+1)-space plays the role of origin fold.
53. Domain boundary ration of Hyper cube N  
 $A^n: 2N A^{n-1}$
54. Geometric Envelope of Cube
- i). Boundary fold of cube is designated as geometric envelope of cube.
  - ii). Geometric envelop cube is constituted by
- (A) 6 surface
  - (B) 12 Edges
  - (C) 8 Corner points
55. Total structural components of cube  
 Total structural components of the setup of cube are:

- (A) 6 surfaces
  - (B) 12 Edges
  - (C) 8 Corner points
  - (D) 1 Volume
  - (E) 3 Axes
  - (F) 1 Origin
56. NVF (Cube) = 31
57. TCV घन

(i). TCV (घन)=14

(ii). TCV (घन)  $14+13=27$

(iii).  $14= 2+3+4+5$ , parallel to summation value of four fold manifestation layer (2,3,4,5) of Hyper cube-4.

58. Six place value format at boundary of Hyper cube-3.

- (i). Six components of boundary of Cube provides a format for 6-place value system.
- (ii). Six boundary components of cube, permit organization as  $6 = 2 + 4$  and parallel to it is the grid/Metrix  $2 \times 4$  for placement of double digit numbers  $2 \times 4 = 8$  of 3 place value system.
- (iii). Pair of numerals (1,2) of 3 place value system
- (iv). Also works out along binary system of geometric format of spatial order of pair of Axes of linear and spatial formats being availed by Pingala Chand Vedanga.

59. Split of cube

- (i). Cube permits split as 8 sub cubes.
- (ii). this split of cube is parallel to split of 3-space into eight octants.
- (iii). Further this split is parallel to the format (1,2) leading to  $(1^3, 2^3)$

## 60. Different roles of 3-space

- (i). Basic role of 3-space is as domain fold.
- (ii). 3-space plays the role of dimension
- (iii). 3-space also plays the role of boundary of 4-space
- (iv). Still further, 3-space also plays the role of origin of 2-space.
- (v). Ahead, 3-space as well plays the role of transcendental base for the origin fold of hyper cube-1

## 61. 4x4 format for roles of 3-space.

0	1	2	3
1	2	3	4
2	3	4	5
3	4	5	6

## 62. North East diagonal,

- (i). Along North East diagonal there are uniform values of 3-space.
- (ii). This makes north east diagonal format being of affine features, as much as that throughout, at all stages it accepts value-3
- (iii). The North East diagonal format is also of sequential attainments, as much as that it sequentially of its own transits and transforms into different phases and stages of progression along north east diagonal itself as of sequential role of 3-space as dimension fold, boundary fold, domain fold and origin fold.
- (iv). Still ahead it transcends further and attains transcendental base role for 3-space.

## 63. Tri-shapta format with transcendence attainment along North East diagonal format of 4 x 4 grid/Matrix format of different roles of 3-space is reached as Tri-Shapta format parallel to the format (5, x 7) being of the feature of 5 space as dimension fold, 7-space as domain fold. Here It would be

relevant to note that 5-space is a solid order space, as much as that 3-space plays the role of dimension of 5-space and the dimensional frame of 5-space is constituted by 5 solid dimensions.

64. (3,7) Tri- Shapta literally means 3 and 7.
65. 7 versions of cube
- (i). Cube accepts 7 versions.
  - (ii). This is parallel to representative bodies of 7 geometrics of 3-space
  - (iii). 7 versions of cube sequentially accept surface plates as (6,5,4,3,2,1,0) with summation value  $(6+5+3+2+1+0)=21=3 \times 7$
66. 9 points fixation of cube
- (i). cube accepts fixation in terms of 9 points, of which eight are the corner points and ninth is the centre which is the seat of origin of 3 dimensional frame and as such is the seat of 4-space which maintains the integrity of the volume of the cube.
  - (ii). Centre at '0' value, sequentially shall be tracing values '1,2,3', only prime triple parallel to the format of interval, square and cube making quadruple of hyper cubes 0,1,2,3.
  - (iii). This as such shall be making out solid folds within solid folds like orbital within orbits, a repeated manifestation process, where by eighth sub sub cubes of eight sub cubes shall be remaining integrated as ninth sub cube of the cube and there being a fixation of cube in terms of nine sub cubes of above structural interlinking formats.
67. Half dimensional frames within corners of cube
- (i). within each corner point of cube is imbedded a 3-dimensional frame of half dimensions.
  - (ii). Orientation of each dimension is of inward format.

- (iii). Each edge, as such becomes a format for a pair of dimensions of opposite orientations making middle point of the edge being of a neutralized state.
68. Split of a three dimensional frame.
- (i). 3-dimensional frame of full dimension is imbedded with origin at centre of the cube.
- (ii). The 3-dimensional frame imbedded at centre of the cube is of full dimensions.
- (iii). 3 dimensional frame of full dimensions imbedded at origin of the cube is a synthetic setup of a pair of 3 dimensional frames of half dimensions.
- (iv). As such, because of spatial order of origin of 3 dimensional frame, it splits into a pair of 3 dimensional frame of half dimensions.
69. Synthetic setup of a 3 dimensional frame.
- (i). 3 dimensional frame is a synthetic setup of a origin and 3 dimensions.
- (ii). Origin is of a spatial order (2-space in the roll of dimension of 4 space! and origin being a point of 4-space.
- (iii). Each dimension with its neutralized middle point at centre of the cube splits dimension into a pair of half dimensions.
- (iv). With it, 3-dimensional frame of 3 dimensions becomes a synthetic setup of a pair of 3 dimensional frames of half dimensions.
70. Split of a 3 dimensional frame
- (i). Split of 3 dimensional frame is there because of spatial order of the origin.
- (ii). Because of it, each dimension splits into a here of half dimensions.
- (iii). Origin itself, being of a spatial order setup, which itself leads to  $2=(0,0)$  splits the origin into a pairs of origins.

- (iv). The split of origin into a pair of origins because of the format and features of spatial order parallel to  $(2 = 0, 0)$ , the same, amounts to a release of a solid order at the base of the origin.
- (v). solid order 5 space is at the base of spatial order 4-space origin.
- (vi). Solid order of 5-space constitutes 5 dimensional frame of 5 solid dimensions.
- (v). each solid dimension of a 3 dimensional frames of dimension itself splits into a pair of 3 dimension frames of half dimensions and thereby making it a setup of 10 three dimensional frame of half dimensions parallel to eight three dimensional frames of half dimensions imbedded in 8 corner points plus 2 three dimensional frames of half dimensions available as a pair of parts of three dimensional frames of full dimensions imbedded at centre of the cube.

#### 71. Transcendental chase

- (i). Let us sit comfortably and chase above features of the setup of 10 three dimensional frames of half dimensions.
- (ii). Solid order dimensional frame of transcendental domain is constituted by 5 solid dimensions as synthetic setup of 10 three dimensional domains of half dimensions.

#### 72. Spatial formats for dimensions

- (i). 3-space is a linear order space
- (ii). However these linear dimensions are of a spatial format.
- (iii). It is because of this spatial format that cube splits into eight sub cubes.
- (iv). And 3-space splits into eight octants.

#### 73. Hyper cube format for each dimension

- (i). 3-space accepts a dimensional frame of linear order.
- (ii). each dimension of a 3-dimensional frame is of the format of Hyper cube-1.
- (iii). Hyper cube-1 is of four folds (-1,0,1,2)/(-1 space in the role of dimension, 0-space in the role of boundary, 1-space in the role of domain, 2-space in the role of origin.
- (iv). It is because of 2-space in the role of origin that each dimension of 3-space is of a spatial format.

74. Cube as Hyper cube-3.

75. Cube is of the format of hyper cube-3 format because of spatial format of its dimensions.

- (i). spatial format provides and leads to spatial order (2-space in the role of dimension) for the manifestation format of cube.
- (ii). This makes manifestation of cube as Hyper cube-3 because of its spatial format which of the features of four fold manifestation (2,3,4,5)/ 2-space as dimension, 3-space as boundary, 4-space as domain, 5-space as origin.

76. Syntheses and split of dimensional order

- (i). The dimensional order of 1-space is (-1) space.
- (ii). (-1 space, -1 space = (1 space) is the synthetic rule for the dimensional order of 1-space.
- (iv). The Hyper cube-1 format as such as (-1, 0,1,2) shall be working out as per the syntheses rule  $\{(-1,0,1,2),(-1,0,1,2)\} = (1,2,3,4)$

77. The above value amounts to Hyper cube-3 format splitting into a pair of Hyper cube-1 formats.

- i. Also, the other way round, it is parallel to a pair of Hyper cube-1 formats synthesizing a hyper cube-3 format.
- ii. In journal a pair of hyper cube N formats synthesize a (N+2 format).

- iii. And, the other way round, hyper cube N format splits into a pair of hyper cube (N-2) formats.
78. Syntheses reach of pair of hyper cube-2.
- i. Hyper cube-2 is a fourfold manifestation layer (0,1,2,3) with summation value  $(0+1+2+3)=6$ .
  - ii. Summation of value for a pair of hyper cube-2 manifestation layers together comes to be  $6+6=12$ .
  - iii. However a pair of hyper cube-2 formats synthesize hyper cube-4 format of manifestation layer (2, 3, 4, 5) with summation value  $(2+3+4+5) =14$ .
  - iv. One may have a pause here and take note that artifices pair (12,14) format is parallel to a format of (dimension fold, domain fold)
79. Syntheses of a pair of hyper cube-3 formats.
- (i). summation value of four fold manifestation layer (1,2,3,4,) of hyper cube-3 comes to be  $(1+2+3+4)=10$ .
  - (ii). As such summation of value for a pair of manifestation layer of hyper cube-3, comes to be  $10+10=20$ .
  - (iii). However the summation value of format of hyper cube-5 synthesized by a pair of hyper cube-3 comes to be  $(3+4+5+6)=18$ .
  - (iv). Here It would be relevant to note that artifices pair (20,18) is parallel to the format of (domain fold, dimension fold).
80. Comparative features of synthetic setups of a pair of formats of hyper cube-2 and of hyper cubes-3.
- i. As above, the synthetic value feature in case of hyper cube-2 comes to be parallel to artifices pair (12,14), which is parallel to the format of dimension fold, domain fold).

- ii. On the other hand synthetic value features in case of hyper cube-3 is parallel to the format of artifices pair (20,18) which is parallel to (domain fold, dimension fold).
  - iii. One may have a pause here and take note that in case of hyper cube-2 the reach is from dimension fold to domain fold, while in case of hyper cube-3, reach is back from domain fold to dimension fold.
  - iv. One shall further have a pause here and permit the transcending mind to be phase to phase with these features of opposite orientation in case of the synthetic setups of a pair of hyper cube-2, on the one hand and of a pair of hyper cube-3, on the other hand
81. Creative and transcendental format
- (i). A pair of hyper cubes-2 synthesize a creative format (of hyper cube-4 format and features).
  - (ii). A pair of hyper cubes-3 synthesizes a transcendental format (of hyper cube-5 format and features).
  - (iii). One shall sit comfortably and be face to face with creative and transcendental format.
82. Caged space at internal structures of cube.
- (i). There are four internal diagonals of cube.
  - (ii). There are a pair of 3 dimensional frames of half dimensions imbedded at the end points of the end point of each diagonals.
  - (iii). The inward translation of such pair of 3-dimensional frames, with reach for their origins (end points of diagonal/corner points of the cube) at centre of the cube as middle point of the diagonal, shall be synthesizing this pair of 3 dimensional frames of half dimension into a 3 dimensional frame of full dimensions.

(iv). One shall sit comfortably and be face to face with such translation and syntheses of a pair of 3 dimensional frames of half dimensions into a 3 dimensional frame of full dimensions.

83. A set of five 3 dimensional frame of full dimensions at centre of the cube.
- (i). Translation of a pair of 3 dimensional frame of half dimension along the diagonal coordinating them shall be leading to a 3-dimensional frame of full dimension at centre of the cube.
  - (ii). Like that there would be and availability of four three dimensional frames of full dimensions and centre of the cube because of the availability to four such internal diagonals
  - (iii). Fifth three dimensional frame of full dimensions is already available at centre of the cube because of which the integrality of the volume of the cube stands maintain.
  - (iv) With it there emerges is setup of five 3-dimesnional frame of full dimension at centre of the cube.
  - (v). one shall sit comfortably and permit the transcending mind be face to face with this format and features of internal structure space caged within cube as volume of the cube.

12.05.2015

Dr. Sant Kumar Kapoor