

# Sri – Om VEDIC MATHEMATICS AWARENESS YEAR

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*'Credit goes to Swami Bharti Krshna Tirtha Ji Maharaj to focus the attention of present generation about the values of Ganita Sutras (mental Mathematics Sutras)'*

*All are invited to join Awareness program*

*All are warmly invited to join the awareness program of Vedic Mathematics. All teachers, parents and students are invited to Learn and Teach Vedic Mathematics for proper intelligence growth at School.*

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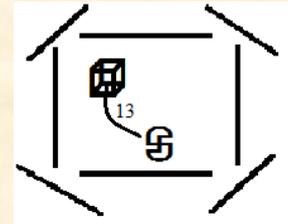
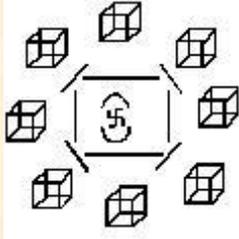
श्री ॐ Sri-Om  
VEDAS ARE WRITTEN ON RAYS OF SUN  
*Let us learn to read it*

### I Shakala Rigved Samhita FIRST RICHA

“अग्निमीले पुरोहितं यज्ञस्य देवमृत्विजम् ।  
होतारं रत्नधातमम् ॥ ‘ऋ१-१-१’”

#### Recapitulation

#### Organization foundation format



### LEARNING STEPS

1. Organization foundation format
2. Reach from Hyper cube 4 to Hyper cube 5
3. Reach from Hyper cube 5 to Hyper cube 6
4. Hyper cube 4 format for each letter of Devnagri alphabet
5. Chase of 432000 akshras along geometric formats within 4-space

## SIXTH LEARNING STEP

### DIVYA GANGA PARVAH

#### Recapitulation

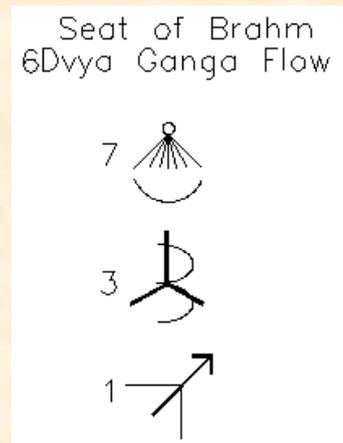
1. Domain fold is the third fold of four fold manifestation layer of hyper cube format parallel to the manifestation format of Idol of Lord Brahma, creator the Surepme, four head lord, presiding deity of 4-space of spatial order.
2. Domain fold is a manifested space content within geometric envelop being the manifested space content of boundary fold.
3. Enveloped domain fold is integrated in terms of its dimensional frame with each dimension being of hyper cube format of dimension fold space.
4. The origin (of domain) is a top tip of the compactified range of origins together having a setting along the transcendence path of transcendence from domain (space content) through its origin.
5. This transcendence Phenomenon is a phased flow process for the domain fold content which sequentially extends four fold manifestation fold manifestation layer into five fold transcendence range with fifth fold being the manifested space content of next (next to origin) space content.
6. This fifth fold, otherwise is lively in unmanifest state at base of origin fold.
7. Taking domain fold as a manifest state, a step ahead, the origin fold would acquire unmanifest state.
8. And a step ahead, the base of origin fold (fifth fold) would acquire a state of 'base of unmanifest'.
9. One may have a pause here and visit the conceptual terms
  - (i) (व्यक्ता) Vyakta / manifest ☐
  - (ii) (अव्यक्ता) Avyakta / un-manifest ☐
  - (iii) (अव्यक्तोअव्यक्तात्) Avyakato-Avyaktat / base of un-manifest ☐
  - (iv) सनातनः is (अव्यक्तोअव्यक्तात्) / Avyakato-Avyaktat ⇌
10. These conceptual terms are of features of manifest state (domain fold / third fold) / 3-space content lump / a domain fold of hyper cube 3 / cube (☐) being (व्यक्ता) Vyakta / manifest.
11. And un-manifest state (origin fold) / fourth fold / 4-space content lump / domain fold of hyper cube 4 (☐) is (अव्यक्ता) Avyakta / un-manifest.

12. And still ahead, the base of un-manifest (origin fold) is the fifth fold / domain fold of hyper cube 5 (५) is (अव्यक्तोअव्यक्तात्) Avyakato-Avyaktat / base of un-manifest.
13. The domain fold is the manifested space content.
14. Its center is of the format of origin fol. It as such is structured 'rim' for porous 'inn' permitting transcendence flow to the base fold (fifth fold)
15. Let us further have a pause and revisit origin of 3-space as 4-space of 9 geometries range while 3-space itself is of 7 geometries range. It as such as a pair of artifices (9, 7) extends to the range of triple artifices (9, 7, 5) parallel to transcendence range of the format (domain, dimension, dimension of dimension, with dimension of dimension (5) goes to the base of unmanifest.
16. One may further have a pause here and take note that in reverse orientation, transcendence would be of the format and steps (1, 3, 5).
17. One may further have a pause here and take note that the base of origin fold / fifth fold is at the base of unmanifest and same is sustained from above as (9, 7) and from below as (3, 1).

### SIXTH LEARNING STEP

18. The sixth learning step as such is about the learning of sustenance of base of unmanifest as fifth fold in terms of paired pairs of artifices (9, 7) and (3, 1) parallel to transcendence from above from 9-space as domain fold to 7-space as dimension fold and further ascendance from below from 1-space as dimension to 3-space as domain.

19. This paired pair of artifices (9, 7) and (3, 1), lead to quadruple artifices set up (9, 7, 3, 1), which is parallel to the flow format of 9 streams, 7 streams, 3 streams and 1 stream along the four fold set up of sole syllable Om unfolding as Bindu Sarovar (●), Ardh Matra (∪), Tripundam (ॐ) and Swastik pada (卐)



20. One may have a pause here and take note that  $1 + 2 + 3 + 4 = 10$  is parallel to summation value of four fold manifestation layer (1, 2, 3, 4) of hyper cube 3, while the summation value of quadruple streams flow (9, 7, 3, 1) is of summation value  $(9 + 7 + 3 + 1) = 20$  which is equal to TCV (वेद) = TCV (देव) = 20.

21. One may further have a pause here and take note that the pair of four fold manifestation layers (1, 2, 3, 4) and (1, 2, 3, 4) of hyper cube 3 and hyper cube 3 respectively, on fold wise synthesis shall be leading us to  $(1, 1) = 3$ ,  $(2, 2) = 4$ ,  $(3, 3) = 5$  and  $(4, 4) = 6$  leading to manifestation layer (3, 4, 5, 6) of hyper cube 5.
22. One may further have a pause here and take note that the pair of solid dimension (of hyper cube 3 format) synthesize hyper cube 5.
23. One may further have a pause here and take note that triple transcendence ranges (1, 2, 3, 4, 5), (1, 2, 3, 4, 5) and (1, 2, 3, 4, 5) shall be fold wise synthesizing (6, 6, 6, 6, 6) with summation value  $(6, 6, 6, 6, 6) = 30$
24. One may further have a pause here and take note that the summation value of transcendence range (1, 2, 3, 4, 5) is  $(1 + 2 + 3 + 4 + 5) = 15$  and as such grand summation value of three such transcendence ranges would come to be  $15 + 15 + 15 = 45$  which is  $3/2$  times the synthesis value 30.
25. One may further have a pause here and take note that artifices pair (3, 7) are coordinated as 3-space having 7 geometries range.
26. Still further It also would be relevant to note that (0-space) accepts single geometry, 1-space accepts 3 geometries, 3-space accepts 7 geometries and 4-space accepts 9 geometries.
27. As such quadruple spaces (0-space, 1-space, 3-space, 4-space) have a jump at the middle over (2-space) and 2-space has 5 geometries range.
28. The roles of 2-space and 3-space for organization format of Divya Ganga flow streams and the emerging factor  $3/2$  for coordination of  $45 = 30 \times 3/2$  for the summation values of triple transcendence ranges (1, 2, 3, 4, 5) as  $15 + 15 + 15 = 45$  and the summation value of single manifestation layer (1, 2, 3, 4) with summation value  $(1, 2, 3, 4) = 10$  together with pair of manifestation layers (1, 2, 3, 4), and (1, 2, 3, 4) of summation value  $(10 + 10) = 20$  leading to grand summation value  $(10 + 20) = 30$ .
29. All these features deserve to be visited and revisited.
30. These features also deserve to be chased and to be worked out.
31. One shall further have a pause here and to revisit the above features and comprehend them fully and to have their thorough appreciation to have complete imbibing thereof to acquire deep insight of this transcendence Phenomenon of Divya Ganga flow through artifices of sole syllable Om (ॐ).

to be continued....

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04-02-2015, Dr. S. K. Kapoor, (Ved Ratan)

*Ganita Sutras objective &  
short questions Tests  
and full comprehension tests*

### *Tests*

1. General features tests
2. About Arithmetic operations on first principles
3. About broad coverage domain of Ganita Sutras
4. About Ganita Sutra 5
5. About Ganita Sutra 6
6. About pure and applied values of Ganita Sutra 1
7. About text of Ganita Sutra 1 (GS1)

### *Test - 8*

#### *Word formulation specific about 'समुच्चय' samuccaye*

The word formulation 'समुच्चयः' finds place in the texts of Ganita Sutra 5, Ganita Sutras 15, Ganita Sutras 16, Ganita upsutra 10 and Ganita Upsutra 13?

This word formulation 'समुच्चयः' *samuccayah* occurs twice in the text of Ganita upsutra 13.

As such, the word formulation 'समुच्चयः' *samuccayah* occurs six times in the text of Ganita Sutras and Ganita Upsutras.

This as such speaks for the role and importance of this word formulation.

The word formulation occurs in the text of Ganita Sutra 5 in the format frame 'समुच्चये' *samuccaye*

In Ganita Upsutra 10 this formulation appears in the form and frame as 'समुच्चय' *samuccayah*

In Ganita Sutras 15 and 16 this formulation occurs in the form and frame as 'समुच्चयः'

However this formulation occurs in the text of Ganita Upsutra 13, once as 'समुच्चय' and once as 'समुच्चयः'.

Therefore this formulation deserve to be chased for its presence in triple forms and frames, namely (i) 'समुच्चये' (ii) 'समुच्चय' (iii) 'समुच्चयः'

These formulations avail following letters

## ‘समुच्चये’

	1	2	3	4	5	6	7	8	9	Total
Letter	स्	अ	म्	उ	च्	च्	अ	य्	ए	9
TCV	3	1	9	3	2	2	1	1	6	28
VCV	6	0	5	0	6	6	0	1	0	24

## ‘समुच्चय’

	1	2	3	4	5	6	7	8	9	Total
Letter	स्	अ	म्	उ	च्	च्	अ	य्	अ	9
TCV	3	1	9	3	2	2	1	1	1	23
VCV	6	0	5	0	6	6	0	1	0	24

## ‘समुच्चयः’

	1	2	3	4	5	6	7	8	9	10	Total
Letter	स्	अ	म्	उ	च्	च्	अ	य्	अ	:	9
TCV	3	1	9	3	2	2	1	1	1	13	35
VCV	6	0	5	0	6	6	0	1	0	0	24

The letters being availed by above word formulations are:

Sn	1	2	3	4	5	6	7	8
letters	स्	म्	च्	य्	अ	उ	ए	:

Q 1. Read the word formulation ‘समुच्चय’

Q 2. Read the word formulation ‘समुच्चयः’

Q 3. Read the word formulation ‘समुच्चये’

Q 4. Read the word formulation ‘सम्’ and express your comprehension of the meanings of this formulation.

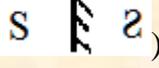
Q 5. Read the word formulation ‘उच्च्’ and express your comprehension of the meanings of this formulation.

Q 6. Read the word formulation ‘चय्’ and express your comprehension of the meanings of this formulation.

Q 7. Express your comprehension of the script form and format of letter 'स्' as a three dimensional frame of half dimensions parallel to its embedding in corner points of cube.

Q 8. Express your comprehension of the script form and format of letter 'म्' as a fourth degree curve within quarter of a square.

Q 9. Express your comprehension of the script form and format of letter 'च्' as a semi circle / hemi sphere / northern hemi sphere / western semi circle.

Q 10. Express your comprehension of the script form and format of letter 'य्' as image of script form of first vowel within play (  )

Q 11. Chase 3-space bodies (solids) and 4-space bodies (hyper solid 4 being of zero value) within transcendental (5-space) domains and as such reach at the meaning of formulation 'सम' being equal.

Q 12 Reach at the meaning of 'समुच्चय' as of steps

- (i) 'सम' (equal)
- (ii) 'उच्च' (upward / height)
- (iii) 'चय' (pickup)

Q 13 React at the pure and applied values of word formulation 'समुच्चय' as its is availed in Ganita Sutra 5.

Q 14 React at the pure and applied values of word formulation 'समुच्चय' as its is availed in Ganita Upsutra 10.

Q 15 React at the pure and applied values of word formulation 'समुच्चय' as its is availed in Ganita Upsutra 13.

Q 16 React at the pure and applied values of word formulation 'समुच्चय' as its is availed in Ganita Sutra 15.

Q 17 React at the pure and applied values of word formulation 'समुच्चय' as its is availed in Ganita Sutra 16.

Q 18. Express your comprehension of first meaning of 'समुच्चय' *samuccayah* as a term which occurs as a common factor. Give one illustrative application of this meaning of the formulation?

Q 19. Express your comprehension of second meaning of 'समुच्चय' *samuccayah* as a term which occurs as a product of the independent term. Give one illustrative application of this meaning of the formulation?

Q 20. Express your comprehension of third meaning of 'समुच्चय' *samuccayah* as same numerical numerator. Give one illustrative application of this meaning of the formulation?

Q 21. Express your comprehension of fourth meaning of 'समुच्चय' *samuccayah* as total value. Give one illustrative application of this meaning of the formulation.?

Q 22. Give one illustrative application of the above four meaning of the word 'समुच्चय' *samuccayah* applicable to quadratic equations?

Q 23. Give one illustrative application of the above four meaning of the word 'समुच्चय' *samuccayah* applicable to 'harder' equations?

Q 24. Give one illustration of the meaning of word formulation 'समुच्चय' *samuccayah* for classification of the elements of the set as per their identical values and features as

- (i) Permit classification being odd and even natural numbers.
- (ii) Give one illustration of application of Ganita Sutra 5.
- (iii) Give one illustration of application of Ganita upsutra 10.
- (iv) Give one illustration of application of Ganita upsutra 13.
- (v) Give one illustration of application of Ganita Sutra 14.
- (vi) Give one illustration of application of Ganita Sutra 15.