Phase 9 Applied values / applications of Vedic Mathematics values as availed for chase and organization of ancient wisdom

Phase 9.1 Artifices triple (29, 16, 13)

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Abstract

Vedic systems chase existence phenomenon of Universe (Brahmand), within frames and without frames including of solar universe and existence within human frame. This is the chase of space content manifestation, transcendence from manifestation and reach at self-referral organization. The chase feature is the Sathapatya (geometric base). This chase avails comprehension of artifices of numbers being parallel with the dimensional frames, to begin with ten place value system is availed as of Sathapatya of creative (4-space) boundary of transcendental (5-space) domain. The system continuously unfolds parallel with the folds of existence phenomenon mathematics values of 16 Ganita Sutras and 13 Ganita Uputras, both Ganita Sutras and Upsutras are self sustained systems and also these are complementary and supplementary of each other. The integrated format of Ganita Sutras and Upsutras is of 29 (16 + 13) phases. It is a set up of 519 (283 + 236) letters, 217 (117 + 100) syllables and 46 (24 + 22) words formulations and the entire text is of vedic code value is 927 (511 + 416). The transcendental code value of the text is 1962 (1110 + 952). The text avails the following 36 distinct letters of Devnagri alphabet.

(1) अ (2) आ (3) इ (4) ई (5) उ (6) ऊ (7) ऋ (8) ए (9) ओ

(10) ऐ (11) क् (12) ख् (13) ग् (14) ध् (15) ड् (16) च् (17) ज् (18) ज्

(19) ट् (20) ण् (21) त् (22) ट् (23) ध् (24) न् (25) प् (26) भ् (27) म्

(28) य् (29) र् (30) ल् (31) व् (32) श् (33) स् (34) ष् (35) : (36) .

Transcendental Code Value 1962 parallel with Vedic Code Values 927 along 11 geometries format of transcendental space is being availed as a set up of 1962 + 927 + 11 = 3100. Value 1000 is of feature as being 31^2 less than 10^3 greater than 32^2 . The in between values range is 63 = (39 + 24), value 63 is parallel with transcendental code value of transcendental lord Shiv (5-space) mantra Om Namoh Shivaye. The value 63 is of set up $63 = 7 \times 9$. Ganita Sutra 1 text is a composition of pair of words of artifices (9, 7) the value 39 is parallel with transcendental code value of formulation MAheshwar of transcendental lord. Value 24 is parallel with Sathapatya of dimensional frame of self referral (6-space) of six creative 4-space dimensions.



Ι

Artifices triples (19, 16, 13)

The first letter of the text of Ganita Sutras (ए) is of TCV value 6. The last letter of the text of Ganita Sutras, as well as Ganita Uputras is (:) of TCV value 13. 6-space is of 13 geometries; Hyper cube 6 is of 13 versions.

Ganita Sutras sequentially unfold from first Sutra to Sixteen Sutra (as of steps for each Sutra being from its first letter to the last letter). The transitions mathematics values are supplied by Ganita Uputras.

Ganita Sutras is a complete system. It unfolds from within. It begins with the questions and answer form, the first word (एकाधिकेन) of Ganita Sutra 1, poses a question as to 'one is more than what' and second letter 'पूर्वेण' answers as more than the previous value i.e. '0'. The double digit expression '10' as such is the placement value. In reference to 9 numerals of ten place value system, '0' is the extension of numeral range from '1 to 9' to '1 to 10'. In case of N place value system of N – 1 numerals, the range of N-1 numerals get extended N numerals with Nth value being the placement value of expression '0' for the place value Sathapatya format :

Second digit of Sathapatya	First digit of Sathapatya
\mathbb{N}^1	N^0
N + 10	$N = 10, 10^0$

Ganita Upsutra 1 'आनुरूपेण' is of processing steps 'आनु' / follow, रूप' / Rupe / the form (of domain value) as अण, as it is framed. The consolidated format of Ganita Sutras and Ganita Uputras is of first placement for Ganita Sutra 1, followed by Ganita Uputra 1. The applied values of Vedic Mathematics as such are of initial operation features.

Artifices of numbers are parallel with the dimensional frames. Vedic systems have reached at following set up of sequential values

SN	Value	Sathapatya in 4-space
1	0	2 space content split spectra is of four folds (2, 0, 0,
		-2) of summation value 0 in 4-space
2	1	Hyper cube $\frac{1}{2}$ is of four folds (-1/2, 0, $\frac{1}{2}$, 1) of
		summation value 1 in 4-space
3	2	Hyper cube 1 is of four folds $(-1, 0, 1, 2) = 2$ in 4-
		space
4	3	Hyper cube $\frac{1}{2}$ is of four folds (0, $\frac{1}{2}$, 1, 1 $\frac{1}{2}$) of
		summation value 3 in 4-space
5	4	3-space content split spectra is of four folds (3, 1, 1,
		-1) of summation value 4 in 4-space

It is blissful to take note that above sequential unfolding is of a reach of Sathapatya of whole range of numbers in 4-space.

Vedic Mathematical operations

- 1. Multiplication operation at the base of $1 \ge 1$
- 2. Addition operation basis is at the base of 1 + 1 = 2
- 3. Dimensional synthesis operation is at the base of (1, 1) = 3
- 4. 4 as 1 within 4-space of spatial order (of Sathapatya D3) is parallel with split spectrum of linear order 3-space (D-3) : (3, 1, 1, -1) of summation value.
- 5. TCV (ऋक् Rik) = 5.
- 6. TCV $(\mathbf{q}) = 6$, i.e. of first letter of Sutras text is '6'.
- 7. TCV (:) = 13 is the last letter of text of Ganita Sutras, as well as Ganita Uputras.
- 8. 6-space is of 13 geometries; Hyper cube 6 is of 13 versions.
- 9. Linear format (full linear unit) at the Sathapatya base of organization of number values 1, 2, 3 and so on, is of first value '1'.
- 10.Spatial format of number values (1 x 1, 1 x 2, ----) is of first value '2'.

11.It is this feature which is at the base of full unit manifestation, say of Hyper cube to Hyper cube 1 of four folds (-1, 0, 1, 2) of summation value 2 and of hyper cube 1 (-1/2, 0, $\frac{1}{2}$, 1) of summation value 1 is at the base of Sathapatya feature of Hyper cube 4 (of value 14) and hyper cube 4 (of value 15) together of value 14 + 15 = 29 get unified Sathapatya. This feature deserves to be comprehended well as values range 1 to 28 is of 56 = (28 + 28) factors. The number values range 1 to 29 as well is of 58 = 29+29 factors. The number values range 1 to 30 is of factors 60 = 30 + 30, as well number values range 1 to 28 is of factors 1 to 28 while number values range (1 x 1) to (1 x 28) is of factors '2' to '56' of value 27 above value '28'.

C1	C2	C3	C1	C2	C3	Value '16' as range
1	1	1	17	1	30	'1, 2, 3,16' is of
2	1	2	18	3	33	factors 29
3	1	3	19	1	34	Value $29 = 16 + 13;$
4	2	5	20	3	37	
5	1	6	21	2	39	Value 13 as range
6	2	8	22	2	41	'1, 2, 3,13' is of
7	1	9	23	1	42	factors 21.
8	3	12	24	4	46	Value $21 = 13 + 8$;
9	2	14	25	2	48	
10	2	16	26	2	50	Value 29 as range '1, 2,
11	1	17	27	3	53	3,29' is of factors 58
12	3	20	28	4	57	Value range is of '58
13	1	21	29	1	58	$\begin{bmatrix} factors; \\ Value 58 = 29 + 29 \end{bmatrix}$
14	2	23				value 38 = 29 + 29 = 29 + 16 + 13
15	2	25				
16	4	29				

C1 = numbers., C2 = factors of numbers C3 = sum up of factors uptill the number

One shall reach at factors of all ranges from 1 to 1000 being '2871'. One shall also reach at all primes uptill 1000 being '168'. The TCV values of the text of Ganita Sutras and Upsutras is 1962 (1110 + 952). The Upsutras of TCV value 952 as self sustained domain and also as part of integrated domain extends the TCV value from 1962 to 1962 + 952 = 2914 is of value '43 more than the 2871 factors uptill 1000. The number value 43 is parallel with TCV (ब्रहामाण Brahmand / Universe) = 43, as of reach of transcendental reach (43, 42, 41, 40, 39); number value 39 is parallel with TCV (खूत्र) =

15+ TCV (उपसूत्र) = 39 = TCV (महेश्वर), parallel with 39 factors of range 1 to 21 of factors of values '1 to 13'.

II Formulations of TCV values 29, 16, 13, 21 and 58

- i. TCV (ब्रह्मा / Brahma) = 29
 - (a) Brahma, four head lord, is presiding deity of 4-space.
 - (b) H4, the representative regular body of 4-space is of four folds 2, 3, 4, 5 of summation value 14
 - (c) hyper cube 14 is of 29 versions, as sequential (Sathapatya) / bodies of 29 geometries of 14 space.
- iii. (a) Quadruple spatial dimensions of 4-space, together as dimensional frame of 4-space is of value $2^4 = 16$
 - (b) TCV (जीव / Jeev / Being) is '16'.
 - (c) $TCV (\overline{n} \overline{s}^{-} Ling) = 16$, transcendental lord manifestation for worship.
- iv. (a) Within 4-space 12 edged cube (body of 3-space) is having a degree of freedom of motion in 4-space.
 - (b) This, as such manifests 13^{th} edge of cube.
 - (c) Thirteenth edge of cube is of spatial Sathapatya because of spatial dimensional order of 4-space.
 - (d) Values range 1 to 16 is of 29 factors; 13 more than the value 16.
 - v. (a) Value 13 is of 21 factors.
 - (b) Value 13 is parallel with 13 geometries set up of 6-space.
 - (c) Value 21 accepts organization as 21=1+2+3+4+5+6
 - (d) TCV (पूर्व Purva / east) = 21 = TCV (शिवालय Shivalaya / manifestation of transcendental lord for worship)

III

Exercise - 1 Compile one's own TCV dictionary of Sanskrit words formulations

(Here below only words formulation are being tabulated as expressed in Sanskrit / Hindi. One may take help of Hindi / Sanskrit – English and English – Hindi Dictionaries for parallel words in English.)

It is going to be a blissful exercise to reach at TCV values Dictionary tabulation of formulations of TCV values triple (29, 16, 13). Initial tabulation, may be as under :

	Table 1			Table 2			Table 3	
Formu	Formulation of TCV 13		Formulation of TCV 16			Formulation of TCV 29		
1	कीर्ति		1			1	1	
2	अध्याय		1	आगम		1	स्वभाव	
3	कर्ता		2	नित्य		2	र्ध्रुवं	
4	प्रजा		3	अव्यक्त		3	अष्टप्राकृति	
5	शास्त्र		4	लाभ		4	व्यञ्जन	
6	यज्ञ		5	द्वय		5	मानवाः	
7	पिता		6	ب ې		6	सिद्धि	
	प्रकाश		7	ओम्		7	सन्तुष्ट	
8			8	जीव		8	संवाद	
9	पद		9	उत्तर		9	मनुष्य	
10	अक्षर		10	ন্নিषु		10	· · ·	
11	वायु		11	<u>ु</u> केन		12	, (
12	चक्षु		12	श्लोक		13		
13	शिक्षा			बीज			मामनन्त्र	
14	न्याय		13	_		14	()	
	अष्टक		14	श्रोत्र		15	यजुवेद	
15			15	पर्ण				
16	काम		16	स्थिति				
17	ৰল		17	काण्ड				
18	पात्र		18	आदित्य				
19	ৰল		19	धातु				
20	शम			ণাণ্ <u>ড</u> त्रिषु				
21	कृषि		20	וחק				
		-						

Exercise – 2

Tabulate formulations couples of TCV values pair (16, 13) of format (N + 3, N) and of Sathapatya (origin fold, dimension fold)

SN **Formulations couples** 1 प्राण Pran वायु vayu जीव Jeev चित्त chit 2 3 सूर्य Surya अदित्य aditya 4 त्वचा Twacha चक्षु Chakshu 5 सोप Soap क्रम Karam 7-space origin, 5-space dimension 6 6-space origin, 4-space dimension 7 16 place value format, 16 17 18 19 20 21 22 25 13 place value format 13 14 15 16 17 18 19 22 8 19 place value format, 16 17 18 19 21 22 25 20 13 place value format 13 14 15 16 18 19 22 17 19 place value format 9 23 25 19 20 21 22 24 28 16 place value format 21 22 16 17 18 19 20 25

Initial tabulation, may be as under :

IV

Transit from N place value system to N-R and N+R place value system

- 1. N place value system is of N-1 numerals.
- 2. Numerals 1 to N-1, as such are the single digit values of N place value system.
- 3. In N-1 place value system, N itself becomes the first double digit number.
- 4. The Nth digit is '0'.
- 5. N as double digit number is '10'.
- 6. Second double digit number of N place value system is '11'.

- 7. Third double digit number of N place value system is '12'.
- 8. In the context of ten place value system, the first double digit number is of expression '10'.
- 9. It will be blissful to note that this double digit number expression '10' is also first double digit number of all placement value.
- 10. Ten as first double digit number of all place value systems as a sequence will make '11' as the second double digit number of all systems, 12 as third double digit number of all place value system.
- 11. Thirteen as fourth double digit number of all number system.
- 12. It would be blissful to take note that double digit number '16' of ten place value system, being of 7th placement in ten place value system, as such this value 16 of ten place value system, as expression of same digits '1' and '6' will be of value '17' in the context of ten place value system.
- 13. Ten place value '16' of ten place value system for digits 1 and 6 is of sequential values 17, 18, 19, 20, 21, 22, 23, 24 and 26 for 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th and 20th place value system.
- 14. The TCV (वेद) = 20.
- 15. A shift from 10th place value system to 20th place value system for its first double digit number, 11, will be of value 21.
- 16. The double digit numbers 11 to 19 of ten place values system, are of expression of values '21 to 29'.
- 17. Likewise the values 11 to 19 of ten place value system are of expression '1 to 9' values of ten place value system.

Consolidated table of place values with respect to expression of values 1 to 10 under placement values 1 to 20

C1 = placement value, C2 = is the placement of first double digit number value of the placement in reference to the similar digit placement value of ten place value system

C1	C2	C3	C4	C5	C6	C7	C10
20	21	22	23	24	25	26	29
19	20	21	22	23	24	25	28
18	19	20	21	22	23	24	27
17	18	19	20	21	22	23	26
16	17	18	19	20	21	22	25
15	16	17	18	19	20	21	24
14	15	16	17	18	19	20	23
13	14	15	16	17	18	19	22
12	13	14	15	16	17	18	21

11	12	13	14	15	16	17	20
10	11	12	13	14	15	16	19
9	10	11	12	13	14	15	18
8	9	10	11	12	13	14	17
7	8	9	10	11	12	13	16
6	7	8	9	10	11	12	15
5	6	7	8	9	10	11	14
4	5	6	7	8	9	10	13
3	4	5	6	7	8	9	12
2	3	4	5	6	7	8	11
1	2	3	4	5	6	7	10

- 18. The values range of 1 to N, N -1 numerals get extended of range of N values, the nth value being of placement value.
- 19. The placement value is of symbol and form '0'.
- 20. The Nth value '0' is a double digit format '10'

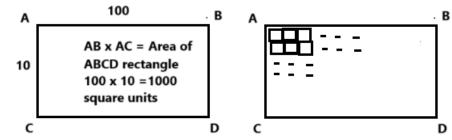
V Formulation Vedic Ganit Sutras

- TCV (वैदिक Vedic) = 25, TCV (गणित ganit) = 18 and TCV (सूत्र Sutra) = 15, together TCV (वैदिक गणित सूत्र) = 25 + 18 + 15 = 58 = TCV (कृष्णद्वैपायन Krishnadwaypayan, Vyas as author of Braham Sutra scripture.
- 2. Ten place value 58 is '68 in 20 place value system, while it is '48' in one place value system.

Sathapatya of Number values range 1, 2, 3, ----Of linear, spatial and solid formats

- 3. Number value 1, 2, 3, 4, ---- of linear Sathapatya are values range 1 x 1, 1 x 2, 1 x 3, 1 x 4, ----- of spatial Sathapatya.
- 4. Ahead, values range 1 x 1, 1 x 1 x 2, 1 x 1 x 3, 1 x 1 x 4, ---- are of solid format Sathapatya.
- 5. Values range 1, 2, 3, 4, ---- is the arrangement of 'line units 1 x 1, 1 x 2, 1 x 3, 1 x 4, ----- is of varga / square units.
- 6. Values range 1 x 1, 1 x 1 x 2, 1 x 1 x 3, 1 x 1 x 4, ---- is of arrangement of cubes / solids.

Organization of 1000 square units

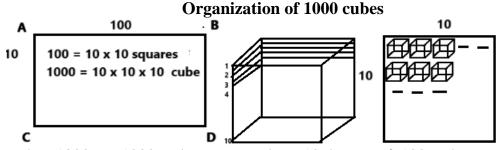


7. The structural components of first raw of square is $: 9 + 6 \ge 99 = 603$.

8. The structural components of second raw of square is : $6 + 4 \times 99 = 102$.

9. Total components of second to ninth row of square is $9 \times 102 = 918$.

10. Total structural components of 1000 squares = 603 + 918 = 1521



11. Value 1000 as 1000 cubes arranged as 10 layers of 100 cubes each make structural component as

(i) Structural component of 10 cubes of first row of first layer are

(ii) $27 + 9 \ge 18 = 9 + 10 \ge 18 = 189$

- (iii) Second row of first layer of ten components is of structural component
- (iv) $18 + 9 \ge 12 = 6 + 10 \ge 12 = 6 + 120 = 126$
- (v) Total structural components of 9 rows of first layer are $9 \times 126 = 1134$.
- (vi) Total structural components of first layer are 189 + 1134 = 1323.
- (vii) structural components of ten cubes of first row of second layer
- (viii) $= 18 + 9 \times 12 = 126$
- (ix) structural components of second row of second layer are
- (x) $12 + 9 \times 8 = 84$
- (xi) structural components of second to tenth row of second layer are
- (xii) $84 \times 9 = 756$
- (xiii) structural components of all ten rows cubes of second layer are
- (xiv) 126 + 756 = 882.
- (xv) structural components of second layer to tenth layer are
- (xvi) 9 x 882 = 7938
- (xvii) structural components of all ten layer are
- (xviii) 1323 + 7938 = 9261

Organization of 1000 linear units

- (xix) Structural components of first unit are 1 + 2 = 3
- (xx) structural components of second to one thousandth units are
- (xxi) $3 + 2 \ge 999 = 1 + 2 \ge 1000 = 2001$
- (xxii) Table of structural components

1000 linear units	1000 square units	1000 cube units
2001	1521	9261

It will be blissful to take note that organization of 1000 linear units structural components is of 2001 components while of 1000 square units is of 1521 units and of 1000 cubic units are 9261. Vedic systems avail this organization of spatial, square and cubic units structural components.

VI Saraswati is the Vidyadevi Ganesha is the lord of mathematics

Here below are being tabulated Saraswati Mantras and transcendental names of Lord Ganesha.

S	Sutra	TCV Value	Total TCV
1.	🕉 प्रणो देव इति	16+41+8=65	65
2.	ॐ आ नो दिव इति	16+33+8 = 57	122
3.	ॐ पावका न इति	16+27+8 = 51	173
4.	🕉 चेदचित्रीति	16+24+8 = 48	221
5.	ॐ महो अर्ण इति	16+37+8 = 61	282
6.	🕉 चत्वारि वागिति	16+33+8 = 57	339
7.	ॐयद्वागवदन्तीति	16+48+8 = 72	411
8.	ॐ देवी वाचम् <mark>इति</mark>	16+44+8 = 68	479
9.	ॐ उत त्व इति	16+20+8=44	523
10.	ॐ अम्बितम्इति	16+33+8 = 57	580

Table of Saraswati Mantras with TCV values

Note:- 580 = 555+25 Braham Sutra = 555 TCV Saraswati = 25

क्रम सं	व्यास का नाम	TCV	Total TCV
1.	सुमुखाः	34	34
2.	एकदंताः	41	75
3.	कपिलः	28	103
4.	गजकर्णाः	34	137
5.	लम्बोदराः	53	190
6.	विकटः	28	218
7.	विघ्नाशनाः	57	275
8.	विनायकाः	36	311
9.	धूमृकेतुः	51	362
10.	गणाध्यक्षः	41	403
11.	भालचन्द्रः	48	451
12.	गजान्ननः	58	509

12 NAMES OF LORD GANESHA

VII

Lord Shiv is the lord of transcendental (5-space) domain

Formulation Shiv unfolds TCV values

Table of ten folds of formulation 'शिव Shiv'

W = Word, S = Syllable, L = Letters, T = TCV value, TT = transcendencethrough dimensional frames (vowels) FF = pronouncing frequency F = Formulation, H = Sathapatya, R = transcendental range SR = Synthesis of transcendental ranges

Folds 1 to 4						
SN	1	2	3	4		
Fold	W	S	L	Τ		
Value	1	2	4	12		
Total	1	3	7	19		

19 = TCV (धुन्र Dhruv / pole star / 7-space body of transcendental (5-space) order)

5	6	7	8	9	10
TT	FF	F	Η	R	SR
21	92	54	40	100	212
21	113	167	207	307	519

folds 5 to 10

The entire text of Ganita Sutras and Upsutras

is of 519 (283 + 236) letters.

Ganita Sutras mathematics is of 7-space range.

7-space is origin of 6-space.

Ganita Sutra 1 and Ganita Uputra 1 together are of symmetrical sequential progression. Value 6 is the first perfect number. Summation value of numbers range 1 to 7 is 28, parallel with second perfect number. Ganita Sutras 283 letters, as number 283, as per sopkaram takes to 286; 6 as first perfect number and 28 as second number. The first shaloka of Shrimad Bhagwad Geeta is of TCV value 286.

"धर्मक्षेत्रे कुरूक्षेत्रे समवेता युयुत्सवः। मामकाः पाण्डवायश्चैव किमकुर्वत सञजय ।। १ ।।"

> Dr. S. K. Kapoor January 26, 2025