

VEDIC ARITHMETIC

Lesson – 4

Master Key of Bunch of Keys of Mathematical Domain of Vedic Ganita Sutras

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Blissful exercise



Structural Keys

Organisation Focus of Text of Vedic Ganita Sutras

There are 16 Ganita Sutras. Of these, five of them namely sutras '1,8,9,15 & 16' are texts of '16' letters each. These together make a set-up of $16 \times 5 = 80$ letters. Value 80 accepts organisation $80 = 8 \times 10$. It is further parallel with the Sathapatya (Geometric Format) of each of 10 creative (4-space) boundary components of transcendental (5-space) domain ($A^5 : 10B^4$) being enveloped by solid (3-space) boundary of 8 components ($B^4 : 8C^3$). Further, it is blissfully parallel with organisation of Rig Veda Samhita, being a scripture of 10 Mandals and 8 Ashtakas.

Five Folds Features of Organisation

This organisation feature makes a 'Five Folds Features of Organisation' parallel with Sathapatya (Geometric format) of four folds manifestation of Creator (4-space) of transcendental (5-space) origin. The mathematics values of Vedic Ganita Sutras are parallel with the Sathapatya (Geometric format) of transcendence from manifested creations of four folds of 4-space to the five folds transcendental (5-space) domain.

It is blissful to take note that, parallel to it, Devanagari Alphabet is of five folds formats.

Placement of letters of Sutras 1,8,9,15 & 16

Here under is reached at table (1) of consolidated placements of letters of Sutras 1,8,9,15 & 16 as of S. N. 1 to 16, as that first letter of Sutra 1 is of placement at S. N. 1, the first letter Sutra 8 is of placement at S. N. 8, the first letter of Sutra 9 is of placement at S. N. 9, the first letter of Sutra 15 is of placement at S. N. 15 and the first letter of Sutra 16 is of placement at S. N. 16, and like that the cyclic placements are maintained, as is the tabulation here under:

**Table -1 Consolidated Placement
of Letters of**

Sutras 1, 8,9,15 & 16

| C 1 | C 2 | C 3 | C 4 | C 5 | C 6 | C 7 |
|-------|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 10 | 9 | 3 | 2 | 25 |
| 2 | 2 | 11 | 10 | 4 | 3 | 30 |
| 3 | 3 | 12 | 11 | 5 | 4 | 35 |
| 4 | 4 | 13 | 12 | 6 | 5 | 40 |
| 5 | 5 | 14 | 13 | 7 | 6 | 45 |
| 6 | 6 | 15 | 14 | 8 | 7 | 50 |
| 7 | 7 | 16 | 15 | 9 | 8 | 55 |
| 8 | 8 | 1 | 16 | 10 | 9 | 44 |
| 9 | 9 | 2 | 1 | 11 | 10 | 33 |
| 10 | 10 | 3 | 2 | 12 | 11 | 38 |
| 11 | 11 | 4 | 3 | 13 | 12 | 43 |
| 12 | 12 | 5 | 4 | 14 | 13 | 48 |
| 13 | 13 | 6 | 5 | 15 | 14 | 53 |
| 14 | 14 | 7 | 6 | 16 | 15 | 58 |
| 15 | 15 | 8 | 7 | 1 | 16 | 47 |
| 16 | 16 | 9 | 8 | 2 | 1 | 36 |
| | | | | | | |
| Total | 16 | 16 | 16 | 16 | 16 | 680 |

C 1 = S.N. 1 to 16**C 2** = Sutra-1 Letters placement 1 to 16

C 3 = Sutra 8 Letters placement from
S.N. 8 to 16 as letters ' 1 to 9' and at
S.N. 1 to 7 as letters 9 to 16

C 4 = Sutra 9 Letters placement from
S.N. 9 to 16 as letters ' 1 to 8'
and at S.N. 1 to 8 as letters 8 to 16

C 5 = Sutra 15 Letters placement from
S.N. 15 to 16

C 6 = Sutra 16 Letters placement from
S.N. 16 as letter 1 and
at S.N. 2 to 15 as letters 2 to 15

C 7 = Total of C 2 to C 6

TCV Values Tables (2 to 6) of Sutras 1, 8,9,15 & 16

Here under are being drawn tables of Letter wise TCV Values of texts of Ganita Sutras 1, 8,9,15 & 16.

| Table -2 | | | | | Ganita Sutra-1 | | | | |
|----------|----|----|----|----|----------------|----|----|----|---|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Letter | ए | क् | आ | ध् | इ | क् | ए | न् | अ |
| TCV | 6 | 4 | 2 | 7 | 2 | 4 | 6 | 8 | 1 |
| SN | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | |
| Letter | प् | ऊ | र् | व् | ए | ण् | अ | | |

| | | | | | | | | | |
|-----|---|---|---|---|---|---|---|--|--|
| TCV | 5 | 6 | 3 | 7 | 6 | 7 | 1 | | |
|-----|---|---|---|---|---|---|---|--|--|

| Table -3 | | | | | Ganita Sutra-8 | | | | | |
|----------|----|----|----|----|----------------|----|----|---|----|----|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Letter | प् | ऊ | र् | अ | ण् | आ | प् | ऊ | र् | अ |
| TCV | 5 | 6 | 3 | 1 | 7 | 2 | 5 | 6 | 3 | 1 |
| SN | 11 | 12 | 13 | 14 | 15 | 16 | | | | |
| Letter | ण् | आ | भ् | य् | आ | म् | | | | |
| TCV | 7 | 2 | 8 | 1 | 2 | 9 | | | | |

| Table -4 | | | | | Ganita Sutra-9 | | | | | |
|----------|----|----|----|----|----------------|----|----|---|----|----|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Letter | च् | अ | ल् | अ | न् | अ | क् | अ | ल् | अ |
| TCV | 2 | 1 | 5 | 1 | 8 | 1 | 4 | 1 | 5 | 1 |
| SN | 11 | 12 | 13 | 14 | 15 | 16 | | | | |
| Letter | न् | आ | भ् | य् | आ | म् | | | | |
| TCV | 8 | 2 | 8 | 1 | 2 | 9 | | | | |

| Table -5 | | | | | Ganita Sutra-15 | | | | |
|----------|----|----|----|----|-----------------|----|----|----|--|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Letter | ग् | उ | ण् | ठ | त् | अ | स् | अ | |
| TCV | 3 | 3 | 7 | 2 | 4 | 1 | 3 | 1 | |
| SN | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |

| Letter | म् | ठ | च् | च् | अ | य् | अ | : |
|--------|----|---|----|----|---|----|---|----|
| TCV | 9 | 3 | 2 | 2 | 1 | 1 | 1 | 13 |

| Table -6 | | | | Ganita Sutra-16 | | | | |
|----------|----|----|----|-----------------|----|----|----|----|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Letter | ग् | उ | ण् | अ | क् | अ | स् | अ |
| TCV | 3 | 3 | 7 | 1 | 4 | 1 | 3 | 1 |
| SN | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Letter | म् | उ | च् | च् | अ | य् | अ | : |
| TCV | 9 | 3 | 2 | 2 | 1 | 1 | 1 | 13 |

Sutra wise five folds of TCV Values of Sutras 1,8,9,15 & 16

The consolidated table of TCV values of Sutras 1,8,9,15 & 16, as such lead to the structural keys of mathematical domain of respective Ganita Sutras.

One shall, glimpse and imbibe of these five folds of each Ganita Sutra, which together make five fold structural key (s) keys of their mathematical domains.

It is blissful to take note that the first fold of structural key of mathematical domain of Ganita Sutra 1 itself, becomes the master structural key of bunch of structural keys of entire mathematical domain of Ganita Sutras.

The TCV value 6 of first fold of structural key of Ganita Sutra 1 as master key deserves to be glimpsed for it's manifested and transcendental Sathapatya as (i) value 6 (ii) 6-space (iii) 6-space content (iv) H6 (v) h6 and (vi) 6 letters of Devanagari Alphabet of TCV value each.

**Table -7 Consolidated Placement Table of
TCV Values of Sutras 1, 8,15 & 16**

| C 1 | C 2 | C 3 | C 4 | C 5 | C 6 | C 7 |
|-----|-----|-----|-----|-----|-----|-----|
| 1 | 6 | 1 | 5 | 7 | 3 | 22 |
| 2 | 4 | 7 | 1 | 2 | 7 | 21 |

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| | | | | | | |
|-------|----|----|----|----|----|-----|
| 3 | 2 | 2 | 8 | 4 | 1 | 17 |
| 4 | 7 | 8 | 2 | 1 | 4 | 22 |
| 5 | 2 | 1 | 8 | 3 | 1 | 15 |
| 6 | 4 | 2 | 1 | 1 | 3 | 11 |
| 7 | 6 | 9 | 2 | 9 | 1 | 27 |
| 8 | 8 | 5 | 9 | 3 | 9 | 34 |
| 9 | 1 | 6 | 2 | 2 | 3 | 14 |
| 10 | 5 | 3 | 1 | 2 | 2 | 13 |
| 11 | 6 | 1 | 5 | 1 | 2 | 15 |
| 12 | 3 | 7 | 1 | 1 | 1 | 13 |
| 13 | 7 | 2 | 8 | 1 | 1 | 19 |
| 14 | 6 | 5 | 1 | 13 | 1 | 26 |
| 15 | 7 | 6 | 4 | 3 | 13 | 33 |
| 16 | 1 | 3 | 1 | 3 | 3 | 11 |
| | | | | | | |
| Total | 75 | 68 | 59 | 56 | 55 | 313 |

C 1 = S.N. 1 to 16

C 2 = Sutra-1 Letters TCV placement 1 to 16

C 3 = Sutra 8 Letters TCV placement from S.N. 8 to 16

as letters TCV ' 1 to 9' and at S.N. 1 to 7 as letters TCV 9 to 16

C 4 = Sutra 9 Letters TCV placement from S.N. 9 to 16

as letters TCV ' 1 to 8' and at S.N. 1 to 8 as letters TCV 8 to 16

C 5 = Sutra 15 Letters TCV placement from S.N. 15 to 16

as letters TCV ' 1 to 2' and at S.N. 3 to 14 as letters TCV 3 to 14

C 6 = Sutra 16 Letters TCV placement from S.N. 16

as letter TCV 1 and at S.N. 2 to 15 as letters TCV 2 to 15

C 7 = Total of C 2 to C 6

Master Key

First Letter (ए/6th vowel)

First letter (ए/6th vowel) of text of Ganita Sutras preserves the value and features of the master key. TCV (ए/6th vowel)='6' is the value of the master key. It as 6th vowel, 6-space, 6-space content (D₆), full unit body (H₆) and half unit body h₆ preserve the features of master key.

Number Value 6

Number value 6 is the 'First perfect number' it is unique perfect number as that in it's case the sum of proper divisors (1,2,3) and their product are equal to '6'.

6-Space

6-space lord is 'विष्णु/Vishnu'. Formulation विष्णु/Vishnu is of TCV (विष्णु)=25. Number value 25 transcendence 4x6 double digit numbers of 5-space value system. Value 24 =4x6 is parallel with creative (4-space) dimensional frame of 6-space of 6 dimensions. Further value 24 is parallel with TCV (पुरुष/ Pursha)=24 = TCV सदाशिव/Sadashiva.

6-space has 6 distinct roles to play as (i) 6-space as dimension (ii) 6-space as boundary. (iii) 6-space as domain, (iv) 6-space as origin (v) 6-space as base fold and (vi) 6-space as format of base fold. These 6 roles of 6-space permit integrated permission as 6x6 grid, as under.

| | | | | | |
|---|---|---|---|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 4 | 5 | 6 | 7 | 8 |
| 4 | 5 | 6 | 7 | 8 | 9 |
| 5 | 6 | 7 | 8 | 9 | 10 |
| 6 | 7 | 8 | 9 | 10 | 11 |

6-Letter of TCV value 6

Letters (ए,अ,इ,उ,ए,अ) are of TCV value 6

Letters (ए) is the 6th vowel and is of Sathapatya of dimensional frame of 6-space. Letter (अ) is of Sathapatya of base fold. Letter (इ) is of Sathapatya of origin fold. Letter (उ) is of Sathapatya of domain fold. Letter (ए) is of boundary fold. The Letter (अ) is of Sathapatya of self-referral (6-space) dimensional order super imposed upon transcendental (5-space) dimensional order.

6-Space Content (D₆)

6-Space content (D_6) unfolds it's four folds (6,4,4,2) of summation value 16 .

6-Space Body (H_6)

6-Space Body (H_6) is a full unit body of four folds (4,5,6,7) of summation value '22'.

6-Space Body (h_6)

6-Space Body (h_6) is an half unit body and is of four folds ($5, 5\frac{1}{2}, 6, 6\frac{1}{2}$) of summation value '23'.

Transcendence within 6-space

Transcendence within 6-space, sequentially takes us to (i) 6-space domain (ii) 4-space dimension (iii) 2-space dimension of dimension (iv) 7-space origin (v) Reversal of orientation at origin and sequential folding as '2-space is dimension of dimension', 4-space as dimension, 6-space as domain, 8-space of self-referral (6-space) dimensional order and finally, the manifestation of $(-10, -10) = (-8)$; TCV (एक/EK/One)=8 and $(10, 01)$ constituting a reflection pair of double digit numbers.

One may have a pause here and take note that values range (6,4,2,7,2,4,6,8,1) is parallel with TCV values of 9 letters of formulation एकाधिकेन/Ekadhikena of text of Ganita Sutra 1.

| Table -2 | | | | | Ganita Sutra-1 | | | | |
|----------|----|----|----|----|----------------|----|----|----|---|
| SN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Letter | ए | क् | आ | ध् | इ | क् | ए | न् | अ |
| TCV | 6 | 4 | 2 | 7 | 2 | 4 | 6 | 8 | 1 |
| SN | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | |

| Letter | प् | ऊ | र् | व् | ए | ण् | ट | | |
|--------|----|---|----|----|---|----|---|--|--|
| TCV | 5 | 6 | 3 | 7 | 6 | 7 | 1 | | |

The second word formulation **पूर्वेण/Purvena** is a composition of 7 letters of TCV value range (5,6,3,7,6,7,1). The self-referral (6-space) domain is enveloped by transcendental (5-space) boundary of 12 components of organisation $12=5+7$, parallel with 5×7 grid accommodating 5×7 double digit numbers of 6-place value system.

01 02 03 04 05

10 11 12 13 14

15 20 21 22 23

24 25 30 31 32

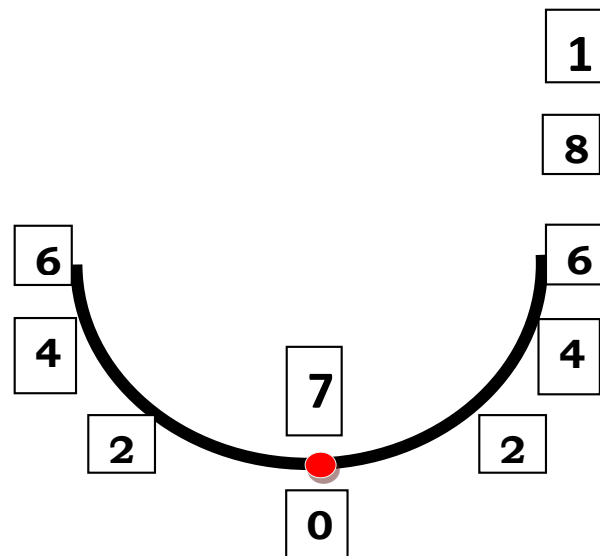
33 34 35 40 41

42 43 44 45 50

51 52 53 54 55 100 (First triple digit number of 6-place value system.)

One may have a pause here and take note that TCV value range of formulation **एकाधिकेन/Ekadhikena** and second word formulation **पूर्वेण/Purvena** of text of Ganita Sutra 1 are of Sathapatya depictions as under:

Parabolic format of TCV values of एकाधिकेन/Ekadhikena



It is blissful to take note that first triple values 6,4,2 is parallel with TCV values triple of formulation ऋषि/Seer/Rishi. The last triple TCV value (1,8,6) is of summation value 15 parallel with TCV (स्वर/Swara/Vowel)=15. The quadrupal TCV value (6,4,2,7)/7,2,4,6) of both orientations are of summation value 26 each parallel with TCV (छंद/Chand/Meter) = 26.

One may have a pause here and take note that the formulation सप्त/Sapta/Seven is of TCV =14. The penta range (6,4,2,7,7)/(7,7,2,4,6) of both orientations are of summation value 26 parallel with TCV (देवता/Devine Domain)=26 .

It is very blissful to take note that TCV (मन्त्र/Mantra)=24 is parallel with 6-space of creative (4-space) dimensional order of 6 creative (4-space) dimensions, together of value $4 \times 6 = 24$.

One shall sit comfortably and to permit the transcending mind to glimpse and imbibe of these features being Sathapatya of Vedas/Vedic Samhitas.

Transcendental (5-space) content flow Sathapatya

Seven steps long TCV values range of 7 letters of formulation पूर्वेण/Purvena, on it's chase is of Sathapatya flow format of transcendental content along the sole syllable Om through it's Bindu Sarovar along both upward and downward directions.

III

Sathapatya

Structural Feature of

Ganita Sutras 8,9,15 &16

Structural Keys of Ganita Sutra 1

Primarily the structural keys of Ganita Sutra 1, as Sathapatya values of it's 16 letters, are sequentially the keys of mathematical domains of Ganita Sutras 1 to Ganita Sutra 16 in that sequence and order. And the master key of these bunch

of 16 keys is the value and Sathapatya of its very first letter namely the 6th vowel (ए).

Structural Keys of Ganita Sutras 8,9,15 &16

Values and Sathapatya of text letters of Ganita Sutra 8,9,15 & 16 also preserve the structural keys of Ganita Upsutras.

The text of Ganita Upsutras 1 to 13, together as composition of 236 letters as dimension folds '236' leads to domain fold value $236+2=238$, parallel with the summation value of TCV values '68,59,56 and 55' / $(68+59+56+55=238)$ respectively of texts of Ganita Sutras 8,9,15 & 16.

The gap values of TCV values (75,68,59,56,55) of Ganita Sutras 1,8,9,15 & 16 namely $(75-68=7, 68-59=9, 59-56=3 \text{ and } 56-55=1)$ are of summation value $7+9+3+1=20$. These quadruple gaps values '7,9,3,1' preserve the structural features :

$$(i) \quad 7+2=9 \quad (ii) \quad \sqrt{9} = 3 \quad (iii) \quad 3-2=1 \quad (iv) \quad 1-7= -6$$

In reverse orientation:

$$(v) \quad 1+2=3 \quad (vi) \quad 3^2 = 9 \quad (vii) \quad 9=7+2 \quad (viii) \quad 7=1+6$$

One may have pause here and take note that, they enrich on both orientations are (-6) and (+6) respectively.

Further as that $6=1+2+3=1 \times 2 \times 3$, and $(-6)= (-1)+(-2)+(-3)= (-1) \times (-2) \times (-3)$

One shall sit comfortably and permit the transcending mind to glimpse and imbibe the Sathapatya feature of opposite orientation of Northern and Southern Solar hemisphere.

Further as that Sathapatya of 6-space origin of 5-space is of format $H_6 + h_6$

Still further as that 7-space origin of 6-space is of format H_7+h_7

In the light of these Sathapatya features, we reach at following table of values and Sathapatya of 7 letters text of formulation पूर्वण/Purvena.

| C1= Serial number, c2= letter, c3 = TCV, c4=Sathapatya | | | | | | | |
|---|----|----|---------|--|--|--|--|
| C1 | C2 | C3 | C4 | | | | |
| 1 | अ | 1 | 1-space | | | | |
| 2 | ण | 7 | 7-space | | | | |
| 3 | ए | 6 | 6-space | | | | |
| 4 | वृ | 7 | 7-space | | | | |
| 5 | र् | 2 | 2-space | | | | |
| 6 | ऊ | 6 | 6-space | | | | |
| 7 | प | 5 | 5-space | | | | |

One may have a pause here and have a glimpse of transcendental happening at the origin (7-space) of Sun (6-space).

There happens a 7 stream flow, in both orientations, from origin of 6-space, a बिन्दु सरोवर/Bindu Sarover/Point reservoir of structures.

One may have a pause here and take note that

$$\text{TCV (बिन्दु)} = 26 = \text{TCV (सरोवर)} = 26$$

$$26 = 5+6+7+8, \text{ summation value of four folds of Hypercube } 7$$

One shall sit comfortably and to permit the transcending mind to glimpse and imbibe both orientation flows from Bindu Sarover/Origin of 6-space. Uptill अर्द्धमात्रा/Ardhamatra/Second component of Sathapatya (Geometric format) of sole syllable Om. A step ahead the upper orientation flow of 7 stream unifies as integrated flow, while the lower orientation flow splits into a pair of triple streams, and the central stream reaches the fourth component and splits it as a transcendental phenomenon of 5-space transcending out of 4-space domain and 4-space domain splitting into a pair of 4-space domain as Swastika Padas/4th component of Sathapatya of sole syllable Om.

Blissful exercise

For full comprehension of Sathapatya of Ganita Sutra 1, one shall sit comfortably and to permit the transcending mind to continuously remain in prolonged sitting of *Transce* to be parallel with the flow of transcendental (5-space) content from origin of/Bindu Sarover of sole syllable Om.

