

Sri – Om
VEDIC MATHEMATICS AWARENESS YEAR

E-Newsletter Issue no 41 dated 22-11-2014

'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.

Dr. S. K. Kapoor
Sh. Rakesh Bhatia
Sh. Bhim Sein Khanna
Sh. Deepak Girdhar
- Organizers

ISSUE NO 41

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श्री ॐ
(Sri Om)

शिव पुराण
(Shiv Puran)

Vedic mathematics, Science & Technology

SOURCE SCRIPTURE

**SHIV PURAN
Vidyeshvara Samhita**

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**Chapter – 3 and 4
Notes**

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1. Shiv Puran is a complete scripture.
2. It fully covers the steps for attainment of transcendental (5-space) domain as the 'ultimate Truth'.
3. Of the two fold paths, the first is of pure knowledge format and second is of applied values practices format.
4. Pure values format is of three phases
 - i. Listening transcendental (5-space) features,
 - ii. Deliberating transcendental (5-space) values and
 - iii. Meditating transcendental (5-space) virtuous

5. The second, applied values practices path is of the features of ‘worship with faith upon idol ling and murti’ of transcendental (5-space) lord
6. Chapter 4 include as

“Shiv Puran Vidyasvara Samhita in Chapter 4 in Shalokas 22-23

The sages said :-

O Suta, you have narrated Sravana etc. – the three means of salvation. If a person is unable to practice these three, what shall he do achieve liberation? What is that rite whereby salvation will be possible without stress or strain?

7. In continuity chapter 5 begin as

Shaloka 1

Suta said:-

A person incompetent to perform the three rites of Sravana etc. shall fix the phallic emblem or the image of Siva and worship them every day. He can thus cross the ocean of worldly existence.

8. The attainment, comprehension, appreciation, imbibing and insight of the features, values and virtuous of transcendental (5-space) domain shall be helping reach (i) Jyotish Vedanga and Surya Siddhanta and thereafter the Vedic domain beginning with Rigved samhita.
9. Lagadh Jyotish Vedanga initiates with personification of Time as:

पच्चसंवत्सरमयं युगाध्यक्षं प्रजापतिम्
दिनत्वयनमासाङ्गं प्रणम्य शिरसा शुचिः १

10. Surya Siddhanta initiates as shalokas 1 to 10 of its first chapter as
Surya Siddhanta

अचिन्त्याव्यक्तरूपाय निर्गुणाय गुणात्मने
समस्तजगदाधार मूर्तये ब्रह्मणे नमः १

- I. To him whose shape is inconceivable and unmanifested, who is unaffected by the qualities, whose nature is quality, whose form is the support of the entire creation – to Brahma be homage!

अल्पावशिष्टे तु कृते मयो नाम महासुरः
रहस्यं परमं पुरयं जिज्ञासुर्ज्ञानमुत्तमम् २

- II. When but little of the Golden Age (Krta Yuga) was left, a great demon (asura), named Maya, being desirous to know that mysterious, supreme, pure and exalted science.

वेदाङ्गमग्रचमखिलं ज्योतिषां गतिकारणम्
आराधयन् विवस्वन्तं तपस्तेपे सुदुश्चरम् ३

- III. That chief auxiliary of the scripture (vedanga) in its entirety – the cause, namely of the motion of the heavenly bodies (jyotis) performed in propitiation of the Sun, very severe religious austerities.

तोषितस्तपसा तेन प्रीतस्तस्मै वरार्थिने
ग्रहाणां चरितं प्रादान्मयाय सविता स्वयम् ४

- IV. Gratified by these austerities and rendered propitious, the Sun himself delivered unto that Maya, who besought a boon the system of the planets.

विदितस्ते मया भावस्तोषितस्तपसा ह्यहम्
दद्यां कालाश्रयं ज्ञानं ग्रहाणां चरितं महत् ५

- V. Thine intent is known to me; I am gratified by thine austerities; I will give thee the science upon which time is founded the grand system of the planets.

न मे तेजः सहः कश्चिदाख्यातुं नास्ति मे क्षणः
मदंशः पूरुषोऽयं ते निश्शेषं कथयिष्यति ६

- VI. No one is able to endure my brilliancy; for communication I have no leisure; this person, who is part of me, shall relate to thee the whole.

इत्युक्त्वाऽन्तर्दधे देवः समादिश्यांशमात्मनः
स पुमान् मयमाहेदं प्रणतं प्राञ्जलिस्थितम् ७

- VII. Thus having spoken, the god disappeared, having given direction into the part of himself. This latter person thus addressed Maya, as he stood bowed forward, his hands suppliantly joined before him:

शृणुष्वैकमनाः पूर्वं यदुक्तं ज्ञानमुत्तमम्
युगे युगे महर्षीणां स्वयमेव विवस्वता ८

- VIII. Listen with concentrated attention to the ancient and exalted science, which has been spoken, in each successive Age, to the great Sage (maharishi), by the Sun himself.

शास्त्रमाद्यं तदेवेदं यत्पूर्वं प्राह भास्करः
युगानां वरिवर्तेन कालभेदोऽत्र केवलः ९

- IX. This is that very same original text book which the Sun of old promulgated: only, by reason of the revolution of the Ages, there is here a difference of times.

लोकानामन्तकृत् कालः कालोऽन्यः कलनात्मकः
स द्विधा स्थूलसूक्ष्मत्वान्मूर्तश्चामूर्त उच्यते १०

- X. Time is the destroyer of the worlds; another Time has for its nature to bring to pass. This latter, according as it is gross or minute, is called by two names, real (murta) and unreal (amurta).

11. Rigved Samhita initiates with Agni Sukta as:

अग्निमीले पुरोहितं यज्ञस्य देवमृत्विजम्
होतारं रत्नधातमम्
अग्नि ईडे पुरःहितं यज्ञस्य दंवे ऋतु इजम्
होतारं रत्न धा तमम् १

अग्नि पूर्वेभिर्ऋषिभिरीडयो नूतनैरुत ।
स देवां एह वक्षति ।
अग्नि पूर्वेभि ऋषिभि ईडयः नूतनै उत ।
सः देवान् इह वक्षति । २

अग्निना रयिमश्नवत्पोषमेव दिवेदिवे ।
यशसं वीरवतमम्
अग्निना रयिं अश्नवत् पोषं एव दिवे दिवे ।
यशसं वीर वत तमम् ३

अग्ने यं यज्ञमध्वरं विश्वतः परिभूरसि ।
 स इदेवेषु गच्छति
 अग्ने यं यज्ञं अध्वरं विश्वतः परि भूः असि ।
 स इदेवेषु गच्छति ४

अग्निर्होता कवित्रतु सत्यश्चित्रश्रवस्तमः
 देवो देवेभिरागमत्
 अग्निः होता कवि त्रतुः सत्य चित्र-श्रवः-तमः
 देवः देवेभिः आ गमत् ५

यदङ् दाशषे त्वमग्ने भद्रं करिष्यसि
 तवेत्तत्सत्यमङ्गिरः
 यत अङ् दादुषे त्वं अग्ने भद्रं करिष्यसि
 त्व इत तत् सत्य अङ्गिरः ६

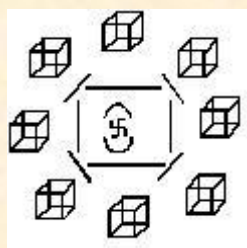
उप त्वाग्ने दिवेदिवे दोषावस्तधिया वयम् ।
 नमो भरन्त एमसि
 उप त्वाग्ने दिवेदिवे दोषावस्तधिया वयम् ।
 नमो भरन्त एमसि ७

राजन्तमध्वराणां गोपामृतस्य दीदिविम्
 वर्धमानं स्वे दमे ।
 राजन्तं अध्वराणां गो पा ऋतस्य दीदिविम्
 वर्धमानं स्वे दमे । ८

स नः पितेव सूनवे ऽग्ने सूपायनो भव
 सचस्वा नः स्वस्तये
 स नः पितेव सूनवे अग्ने सु उपायनः भव
 सचस्व आ नः स्वस्तये ९

12. Atharv ved, meanings formatting veda initiates with measuring rod presided by Lord Vishnu with its measure presided by Lord Brahma for the transcendental (5-space) carriers flow, in terms of which stand unified whole range of systems of our Existence Phenomenon within Human Frame as well as outside the human frame of Brahmand.

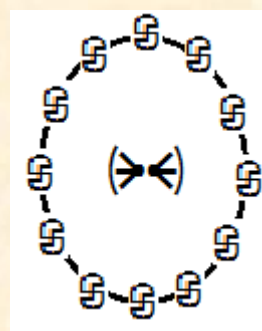
13. This Brahm to Brahmand range manifests as 18 Purans range of which Shiv Puran is of fourth placement.
14. Shiv Puran from fifth chapter onwards of Videshwar Samhita simultaneously covers both coverage paths of transcendental (5-space) domains.
15. The initiation is with the 'fire' / Agni, third mahabhut / basic element of five elements range 'Earth, Water, Fire, Air, Space.
16. These initiations within human frame are in terms of Shad Chakras (six eternal circuits of external characteristics features being of values range 2, 4, 6, 8, 10, 12) which are parallel to the boundary components range of measuring rod synthesized by hyper cubes 1 to 6.
17. The attainment of transcendental (5-space) virtuous results into transition and transformation of Shad Chakras format (six eternal circuits formats into ten transcendental (5-space) circuits formats) and same goes parallel to Vedic order of ten mandals formats of Rigved samhita which is further parallel to transcendental (5-space) domain within creative boundary of ten components attained by Lord Brahma while meditating upon the transcendental (5-space) lord within cavity of his own heart and going transcendental (5-space) as ten mandals.
18. With it the chase of Vedic mathematics, Science & Technology, as such at the initial stage, is to be in the form of enlistment of affine state values and virtuous of transcendental (5-space) domains as these manifests as transcendental (5-space) features and same being preserve in Shiv Samhita.
19. This enlistment shall be of the format of transition and transformation from the format of hyper cube 4 to transition and format of hyper cube 5 and further to the format of hyper cube 6.
20. The symbolic figurative expressions for this range of triple formats may be taken as under:



Hyper cube 4



Hyper cube 5



Hyper cube 6

21. The above formats would be leading to the unified format for organization of chakra for compactified Existence Phenomenon, worked out at the base of Srimad Bhagwad as its study zone, as under:

Srimad Bhagwad Gita Study - Zone:										
$\frac{a}{2}$	$\frac{a^2}{4a}$	$\frac{a^3}{6a^2}$	$\frac{a^4}{8a^3}$	$\frac{a^5}{10a^4}$	$\frac{a^6}{12a^5}$	$\frac{a^5}{10a^4}$	$\frac{a^2}{8a}$	$\frac{a^3}{6a^2}$	$\frac{a^4}{4a^2}$	—
$2 \times 1 = 2$	$4 \times 2 = 8$	$6 \times 3 = 18$	$8 \times 4 = 32$	$10 \times 5 = 50$	$12 \times 5 = 60$	$10 \times 5 = 50$	$8 \times 4 = 32$	$6 \times 3 = 18$	$4 \times 2 = 8$	$2 \times 1 = 2$
Orbitals:				$350 + 350 = 700$						
2	6	10	14	$18 = 5 + 6 + 7$						

22. This further would lead to working transcendental (5-space) values code for Devnagri alphabet format as under:

Devnagri alphabet letters
Transcendental code

Vowels

Vowels	अ	इ	उ	ऋ	ॠ	ए	ओ	ऐ	औ
TCV value	1	2	3	4	5	6	7	8	9

Varga consonants

Varga consonants	क्	ख्	ग्	घ्	ङ्
TCV Value	1	2	3	4	5
Varga consonants	च्	छ्	ज्	झ्	ञ्
TCV Value	2	3	4	5	6
Varga consonants	ट्	ठ्	ड्	ण्	ड.

TCV Value	3	4	5	6	7
Varga consonants	त्	थ्	द्	ध्	न्
TCV Value	4	5	6	7	8
Varga consonants	प्	फ्	ब्	भ्	म्
TCV Value	5	6	7	8	9

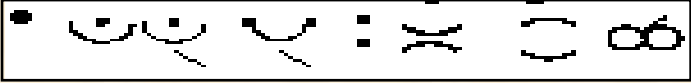
Antstha

Antstha	य्	र्	ल्	व्
TCV value	1	3	5	7

Ushman letters

Ushman letters	श्	स्	ष्	ह्
TCV Value	2	3	6	9

Yama letters

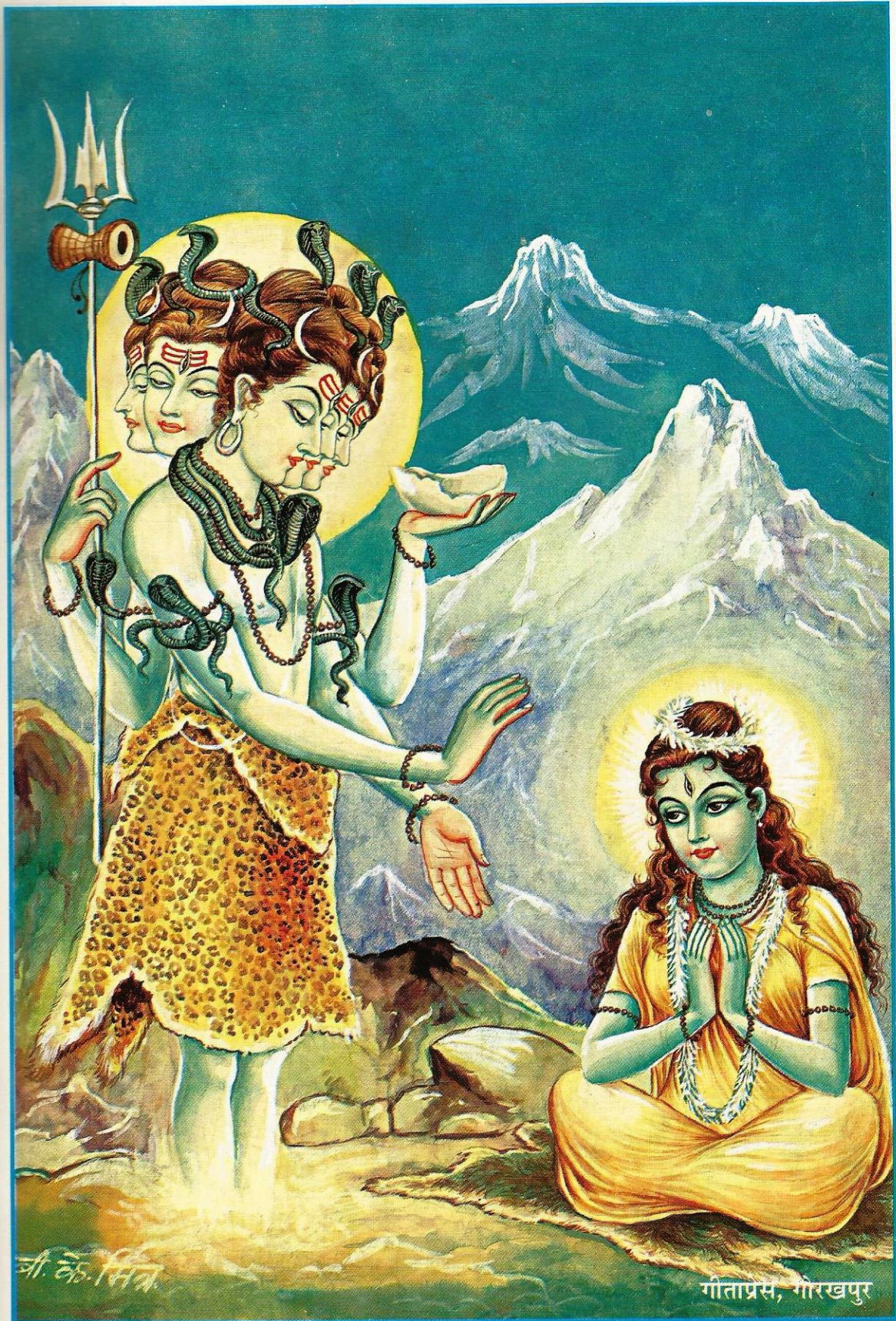
Yama letters							
TCV value	10	11	12	13	14	15	16

23. The pictorial reach for the transcendental (5-space) features, values and virtues as depicted in Puranic literature and worked out by different scholars – painters, as well would be of big help for the sadkhas.
24. Three of these are being reproduced here above:



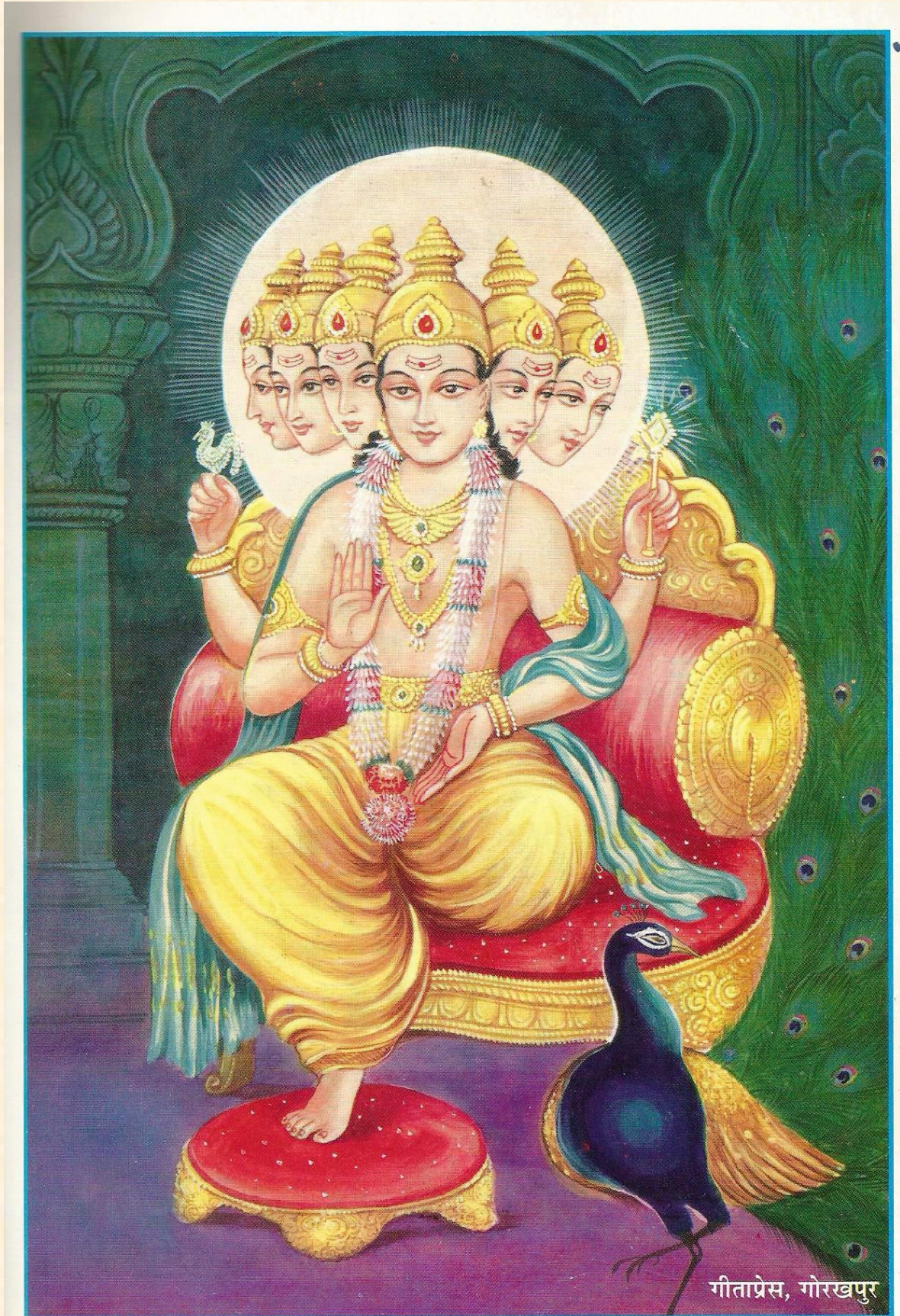
श्रीशिव-पार्वती

Śiva and Pārvatī



तपस्विनी सतीके सामने शिवका प्राकट्य

Siva Manifests before Penancing Sati



गीताप्रेस, गोरखपुर

भगवान् स्कन्द

Lord Skanda

25. Let us tabulate / have enlistment of features, values and virtues of transcendental (5-space) domains preserved in the text of Shiv Puran. Let us first of all and thereafter and then to proceed further by deliberating and meditating thereupon to reach at the systems of Vedic mathematics, Science & Technology.

26. Hence forth we shall be entering upon this exercise.

22-11-2014

Dr. S. K. Kapoor, *(Ved Ratan)*

News and Views

Invitation for participation in Vedic Mathematics textbooks project

INVITATION

1. We are undertaking the project of settling Vedic Mathematics text books for schools.
2. This project is for settlement of text books of Vedic Mathematics for classes eight to twelfth.
3. Text book for each class would be of three parts
Part – 1 'Vedic Mathematics for class VIII
(likewise for class 9, class 10, class 11 and class 12)
Part – 2 'Vedic Mathematics exercises for class VIII'
(likewise for class 9, class 10, class 11 and class 12)
Part – 3 'Teaching and evaluation manual of Vedic Mathematics for class VIII'
(likewise for class 9, class 10, class 11 and class 12)
4. Each sutra and Upsutra would be taken up in separate section exclusively devoted to particular Sutra / Upsutra.
5. This way in all, there would be 29 sections for coverage of all the sixteen Sutras and 13 Upsutras.
6. Participants may contribute for all the 29 sections but each Sutra and Upsutra shall be taken up as independent aspect of values of mathematics as every Sutra values are to be covered in distinct section.
7. The intellectual contribution of participants shall be duly recognized and same shall be properly respected.
8. In the light of this theme, we shall be making separate requests for each sutra and upsutra.

Request of participation about the values of Ganita Upsutra 2

शिष्यते शेषसंज्ञः ।

That remains is remainder

1. We feel privileged to request all to participate in our project of Vedic Mathematics text books for classes eight to twelfth.

2. We request you all to participate and contribute your intellectual inputs about the values of Ganita Upsutra 2.
3. Also contribute about the values of Ganita Upsutra 2 as being complemented and supplemented by the values of other Sutras and Upsutras.
4. We shall be highly thankful for this participation and contribution.
5. We shall be duly recognizing this participation and contribution of intellectual inputs about the values of Ganita Upsutra 2.
6. We shall be highly being our respects and thanks in recognition of the intellectual inputs of participants.
7. It is a noble cause.
8. Please participate.

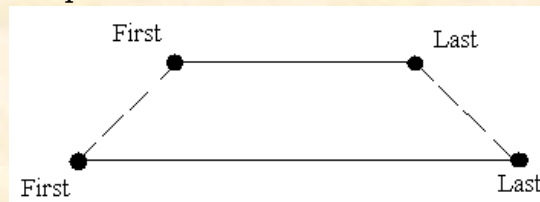
22-11-2014

Sh. Rakesh Bhatia
 Sh. Bhim Sein Khanna
 Sh. Deepak Girdhar
 - Organizers

(CHAPTER FROM BOOK 'VEDIC MATHEMATICS (ORGANIZATION FORMAT OF GANITA SUTRAS) OF DR. S. K. KAPOOR)

TRANSITION FROM GANITA UPSUTRA-2 TO GANITA UPSUTRA-3

1. Ganita upsutra-3 (आद्यमाद्येनान्त्यमन्त्येन / *Adyamadyen-Antyamantylene*) literally means that [while simultaneously formatting Two parallel formats expressions, say of bodies like intervals/squares etc.], Beginning/Starting point/First point of first format expression (आद्यम *Adyam*) with the Beginning/Starting point/First point of the second format expression (आद्येन / *adyen*). And, End/point/Last point [of the second format expression] (अन्त्यम *Antyam*) with the End/point/Last point [of the second format expression] (अन्त्येन / *antylene*).
2. This, in short would mean : 'First with the First and Last with the Last'.
3. This working rule may be illustrated in terms of pair of intervals, by taking a pair of them, may or may not be of equal length and as is depicted as follows, the starting point of first interval to be paired with the starting point of the second interval, and likewise pairing the end point of the first interval with the end point of the second interval.



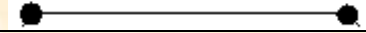


4. For attaining transition from Ganita Upsutra-2 to Ganita Upsutra-3, one shall sit comfortably and have a fresh look at the working rules of Ganita Upsutra-2 and Ganita Upsutra-3, initially, with the help of the expressions like $19=3 \times 6+1$, with 1 as remainder to have insight about the format of Ganita Upsutra-2 and further with the help of above illustrative depiction for Ganita Upsutra-3.
5. Let us focus upon the expressions BEGINNING (आद्यम *Adyam*) and END (अन्त्यम *Antyam*), and immediately we shall be reaching at the existence of the MIDDLE (माद्य *mady*).
6. Let us sit comfortably and permit the transcending mind to chase the expression (आद्यमाद्येन *Adyamadyen*).
7. The formulation (आद्यमाद्येन) sequentially takes us through as follows:

1	2	3	4	5
अ	द्य	म	द्ये	न

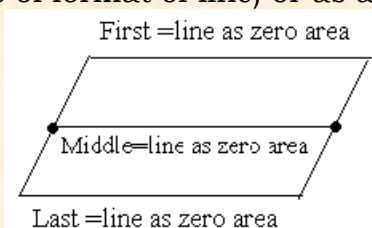
8. This on further chase shall be taking us to

1	2	3	4	5	6	7	8	9	10	11
अ	अ	द्	य्	अ	म्	द्	य्	ए	न्	अ

9. Here it would be relevant to note that, while the format/say interval is split into two parts, the middle is to side either with the first part or with the second part.
10. Here the middle is siding with the first part.
11. It is like dividing a close interval into first part as a close interval and second part as a half open interval.

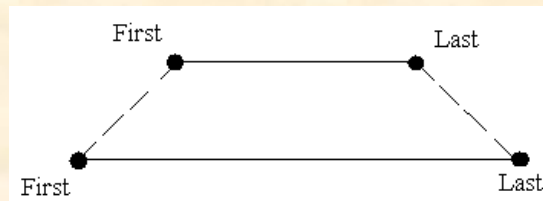
First Step	Close interval 
Second Step	Close interval with middle point 
Third Step	As two parts  Close interval Half open interval

12. It would be relevant to note as that the expression of length between the pair of end points may be viewed as bridging the gap in between the pair of points.
13. One shall sit comfortably and to permit the transcending mind to chase the above expression as 'A BRIDGED GAP between two points'. One may view this bridging as a linear (as of format of line) or as a spatial of a format of a

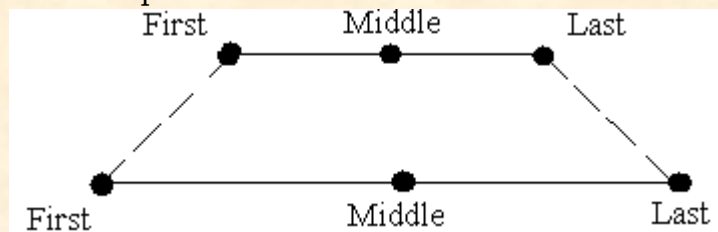


plane/surface, as follows:

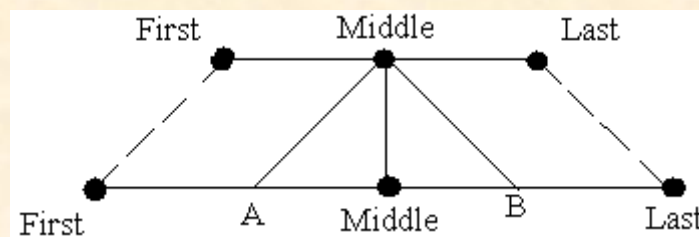
14. As such, the format which deserves to be chased, and is being chased by the working rule of Ganita Upsutra-3 is as GAP BETWEEN A PAIR OF POINTS.
15. Further it would be relevant to note and comprehend well by permitting the transcending mind to glimpse fully as that GAP IS A GAP and is of measures of distinct generic, because of which, while the linear (or infact of any other specific measure like spatial, solid or hyper solid) then the inequality is to be transcended to reach at the equality by weeding out the remainder from the in between Gap.
16. For it, one may reach at the working rule by chasing the same in terms of the above expression for the working rule of Ganita Upsutra-3 in terms of the pair of unequal intervals.



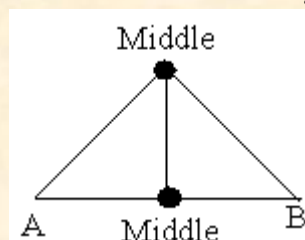
17. Stepwise the chase may be as follows
18. Step 1 To fix middle points for the both intervals as follows



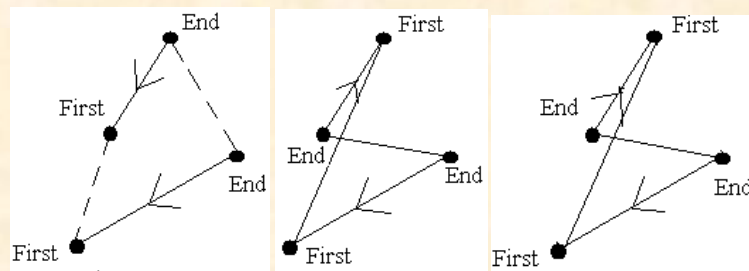
19. Step 2 Join the middles and to draw lines from the upper interval middle parallel to the pair of lines joining first with first and last with last as follows



20. Step 3 Initially one may view the middle triangle, as the REMAINDER.



21. Step 4 As such, one shall sit comfortably and permit the transcending mind to have a blissful transition from Ganita Upsutra-2 to Ganita Upsutra-3.
22. Further it would be relevant to point out here itself, as that the placement of intervals, as above taken as being parallel but in its generality it may not be so, and the working rule of Ganita Upsutra-3, 'first with the first and last with the last', provide a rich field of applied values, of which one illustration would be along the following format for the space scaling in terms of differently angled pair of intervals:



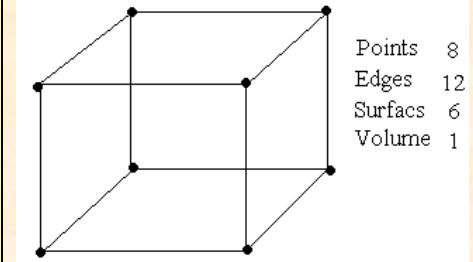
23. One shall sit comfortably and chase the structural imprints to be caused by the set up of a GAP between a pair of points, then by fixing a point in between the gap (to be designated as middle, and chasing this pair of gaps between triple points and so on.
24. One shall sequentially chase the set ups because of single and multiple gaps set ups which shall be following the sequential and symmetry rules of Ganita Sutra-1 and Ganita Upsutra-1.
25. To start with, a case of single gap may be taken up. Which step wise shall be taking us to the values of the orders of intervals, squares, cubes as
26. Step 1, the set up of gap in between the pair of points, is a set up of 3 measures / values / counts / components / set ups / expressions / formats, which along the format of interval shall be having a set up and value as :

Interval format	Components	Value
<div style="display: flex; justify-content: space-around; align-items: center;"> 1 2 3 </div>	3	3^1

27. Step 2, the square format shall be yielding as follows:

Square format	Components	Value
	9	3^2

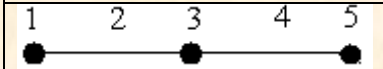
28. Step 3, the cube format shall be yielding as follows:

Cube format	Components	Value
	27	3^3

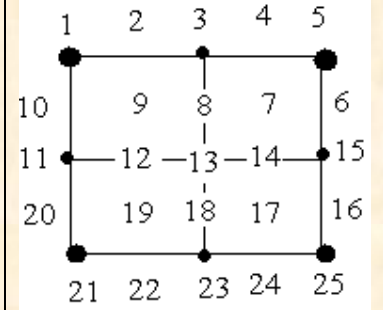
29. Likewise, one may chase the structural setups for A PAIR OF GAPS along interval, square and cube formats.

30. It shall be sequentially taking us to the values 5^1 , 5^2 , 5^3 .

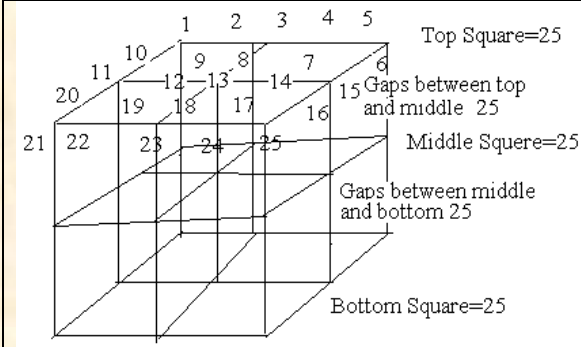
31. As a first step we shall be reaching at

Interval format	Components	Value
	5	5^1

32. As a second step we shall be reaching at

Square format	Components	Value
	25	5^2

33. As a third step we shall be reaching at

Cube format	Components	Value
	125	5^3