

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.

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

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श्री ॐ (Sri Om)

शिव पुराण (Shiv Puran)

Vedic Mathematics, Science & Technology

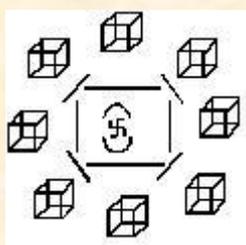
SOURCE SCRIPTURE

शतरुद्र संहिता

Satrudra Samhita

- =====
1. शतरुद्र संहिता Satrudra Samhita is of third placement amongst the range of seven samhitas of Shiv Puran text.
 2. (शत) Shat literally means hundred
 3. TCV (शत) = $3 + 5 = 8 = 2^3$.
 4. TCV (शतरुद्र) = $28 = 1 + 2 + 4 + 7 + 14$; a second perfect number, accepting 5 proper divisors (1, 2, 4, 7, 14)
 5. Along format of hyper cube 5 accepting domain – boundary ratio as $A^5: 10B^4$, at second step leads to $10 \times 10 = 100$ boundary components set up.
 6. Here it would be relevant to note that 5-space accepts the role of origin fold of hyper cube 4 being a four fold manifestation layer (2, 3, 4, 5), it as such in case of $10 \times 10 = 100$ boundary components set up, shall be of the feature of 100 origin (folds) of transcendental (5-space) seats.
 7. The focus of शतरुद्र संहिता Satrudra Samhita is upon this feature of the set up being of 100 transcendental (5-space) domain seats.

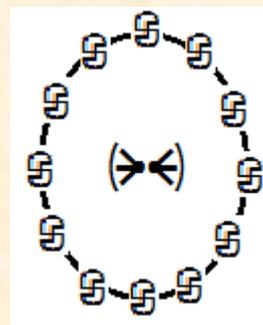
8. Further the focus of शतरुद्र संहिता Satrudra Samhita is upon the re-organization of $100 = 42 + 58$.
9. One may have a pause here and have a fresh visit to the values format of this pair of artifices (42, 52) both being the double digit numbers. Of these, artifice 42 accepts digit 2 at unit place and digit 4 at next place value..
10. The artifices pair (4, 2) is of the format of (domain, dimension), as much as that (4-space) accepts a spatial dimensional order (2-space in the role of dimension of 4-space which, that way play the dominant roles of domain and dimension folds of four fold manifestation layer of hyper cube 4 being (2, 3, 4, 5).
11. The above referred second artifice, namely (58) as well is a double digit artifice with unit place value digit being 8 and next place value digit being 5. One may have a pause here and take note that the digit 8 accepts re-organization as $8 = 5 + 3$, and that artifices pair (5, 3) is parallel to the format and values features of 5-space as domain fold and 3-space as its dimension fold of four fold manifestation layer (3, 4, 5, 6) of hyper cube 5.
12. The organizational chase of शतरुद्र संहिता Satrudra Samhita is going to be parallel to the sequential setups of hyper cubes 4, 5 and 6 respectively.
13. One may have a pause here and have a fresh look at the format and features of hyper cubes 4, 5 and 6 which may be symbolically figured as:



Hyper cube 4



Hyper cube 5



Hyper cube 6

14. Hyper cube 4 is of the format and features of 4-space as domain fold being wrapped within solid boundary of 8 components. With it, hyper cube 4 accepts 9 versions.
15. Parallel to it, 4-space accepts 9 geometries range.
16. Of these, five geometries are non negative geometries.
17. Parallel to this format of 5 non negative geometries and total 9 geometries ranges, is the chase of शतरुद्र संहिता Satrudra Samhita of 5 incarnations of Lord Shiv and 9 incarnations of Lord Shiv.
18. Thereafter, parallel to the transition from the set up of hyper cube 4 to the set up of hyper cube 5, there is a chase of incarnations of transcendental (5-space) lord.
19. Then, शतरुद्र संहिता Satrudra Samhita chases 28 incarnations of transcendental (5-space) lord Shiv is chased is of two phases and stages. The first phase and

stage is of 10 incarnations. This is parallel to 10 creative (4-space) components of boundary of hyper cube 5.

20. The second phase and stage is of 11th to 28th incarnation of transcendental (5-space) lord. These range of 18 incarnations is parallel to the four fold manifestation layer (3, 4, 5, 6) of hyper cube 5 as of summation value $3 + 4 + 5 + 6 = 18$.
21. Here it also would be relevant to note that artifice $28 = 1 + 2 + 4 + 7 + 14$ is of the summation value of precisely 5 proper divisors of 28.
22. Further here it also would be relevant to note that the above ranges of 5, 9, 10, 18 incarnations together constitute a range of 42 incarnations.
23. शतरूद्र संहिता Satrudra Samhita text further takes up the transition features range of incarnation parallel to the transition range from the set up of hyper cube 5 to that of hyper cube 6.
24. शतरूद्र संहिता Satrudra Samhita, in the end as chapter 42 touches the transcendental (5-space) Phenomenon of (i) द्वादश ज्योतिर्लिङ्ग अवतार Dwadash Jyotirling Avtar (twelve transcendental (5-space) incarnations), which are of the format of 12 transcendental (5-space) components of the boundary of hyper cube 6.
25. कोटिरूद्र संहिता Kotirudra Samhita, which is of 4th placement of the range of seven samhitas of Shiv Puran text takes up the subject, in continuity of the subject aspects uptill which the same has been carried in last 42nd chapter of द्वादश ज्योतिर्लिङ्ग अवतार Dwadash Jyotirling Avtar
26. The format of hyper cube 6 is of the features of four fold manifestation layer (4, 5, 6, 7).
27. Seven space as origin fold of 6-space is parallel to the format of pole star as origin of solar universe (Sun).
28. The seven space as domain fold is of the format of hyper cube 7 being of format and features of four fold manifestation layer (5, 6, 7, 8) with summation value $5 + 6 + 7 + 8 = 26$, which is parallel to 26 meters range of coverage range Earth to Sun.
29. This is a range of transcendental (5-space) dimensional order,
30. One may have a pause here and take note that the transcendental (5-space) dimensional order, as such shall be manifesting transcendental (5-space) boundary for Sun (6-space) / Solar universe.
31. This transcendental (5-space) flow from origin fold of 6-space / Sun and its manifestation as transcendental (5-space) boundary is the Phenomenon which deserve to be chased thoroughly.
32. One may have a pause here and take note that Sun (6-space) is of a creative 4-space dimensional order.
33. The fountaining inn of transcendental (5-space) order from 7-space in the role of origin fold of 6-space as such would amount to the super imposition of

transcendental (5-space) order upon the creative (4-space) order of the self referral (6-space) domain of domain fold of hyper cube 6.

34. One may further have a pause here and take note that Shad Chakras (six eternal circuits) format of Human Frame, with transcendental (5-space) order flow from core of Sun as Sunlight of 7 streams of transcendental (5-space) features shall be fountaining transcendental (5-space) order from sixth eternal chakra of human frame and thereby there would be a transition and transformation for Shad Chakra (sixth chakra format) of our Existence Phenomenon within Human Frame into ten chakras format parallel to ten components of creative boundary (4-space) of transcendental (5-space) domain.
35. With it, the chase of organization format, features, values and virtuous of शतरुद्र संहिता Satrudra Samhita becomes a transcendental (5-space) chase.
36. This chase, as such deserve to be of equal dedication and attention. The same is to be of gentle steps appropriately phased and to be sequentially followed the way these have been phased from first to the last chapter of the text.

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27-11-2014

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 5

वेष्टनम् ।

Osculators

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 5.
3. Also contribute about the values of Ganita Upsutra 5 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 5.
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.

27-11-2014

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)

**GANITA UPSUTRA-5 वेष्टनम्
 SHIFT FROM 10 PLACE VALUE
 TO 6 PLACE VALUE**

1. The organization format of Ganita Upsutra-5 'वेष्टनम्' as eight steps long range reorganizing as four pairs manifesting as values of four concentric circles around the center equal to its value.
2. It is like the range of nine numerals pairing four fold around the middle numeral value '5'.
3. The pairing feature of the formulation 'वेष्टनम्' is centered around value '6', and as such there is a shift from ten place value to a 6 place value.
4. It would be a blissful exercise to organize $6 \times 6 = 36$ values of 6 place value system as 5×7 matrix formats for its double digit numbers.
5. Taking the '0' as a place value and '1, 2, 3, 4, 5' as numerals, the set of double digit numbers of 6 place value would permit organization as follows:-

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

6. Likewise it would further be a blissful exercise to extend this format for triple digit numbers as well. It shall be constituting range of $6 \times 6 \times 6 - 1 = 215$ value points.
7. To appreciate the working simultaneously in terms of 6 place value format and 10 place value format, it would be appropriate work out the comparative tables.
8. The comparative table for double digit numbers of 6 place value and 10 place value shall be as follows

10 PV	01	02	03	04	05	06	07	08	09	10	11
06 PV	01	02	03	04	05	10	11	12	13	14	15

10 PV	12	13	14	15	16	17	18	19	20	21	22
06 PV	20	21	22	23	24	25	30	31	32	33	34

10 PV	23	24	25	26	27	28	29	30	31	32	33
06 PV	35	40	41	42	43	44	45	50	51	52	53

10PV	34	35	36	37	38	39	40	41	42	43
06PV	54	55	100	101	102	103	104	105	110	111

9. One may have a pause here and reflect as that the expression value '06' along 10 place value becomes '10' along 6 place value.
10. Likewise, the value $36 = 6^2$ of 10 place value becomes $100 = 10 \times 10$ for the 6 place value.
11. One shall perfect one's skills for conversions from 10 place value format expressions into 6 place value format expression and vice-versa.
12. Here in the context $5 = 6-1$, $4 = 6-2$, $3 = 6-3$, shall be availed to reduce the numerals of values of '4' & '5' for their handling in terms of lesser range negative and positive numerals (0, 1, 2, 3, -3, -2, and -1). Like the bigger numerals of 10 place value system namely $6 = 10-4$, $7 = 10-3$, $8 = 10-2$ and $9 = 10-1$ can be handled in terms of lesser value range negative and positive numerals (0, 1, 2, 3, 4, 5, -5, -4, -3, -2, -1).
13. One shall have a pause here and have a fresh look at the following organization format for 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

14. One shall be observing that the self reflecting artifices (11) and (22) shall be constituting a mirror line for the upper half part of the above format and the self reflecting artifices (33, 44 and 55) shall be constituting a mirror line for the lower part of the format.

15. The upper part shall be pairing artifices as follows
- (01, 10)
 - (02, 20) and self reflecting artifice (11)
 - (03, 30) and (12, 21)
 - (04, 40) and (13, 31), and self reflecting artifice (22)
 - (05, 50) and (14, 41), and (23, 32)
16. The lower part of the above format shall be pairing artifices as follows
- (15, 51), (24, 42) and self reflecting artifice (33)
 - (25, 52) and (34, 43)
 - (35, 53) and self reflecting artifice (44)
 - (45, 54)
 - (55) self reflecting artifice
17. One shall be observing that the upper part has precisely 20 numbers grouped as 9 pairs and 2 self reflected artifices.
18. The lower part has precisely 15 numbers grouped as 6 pairs and 3 self reflecting artifices.
19. It would be a blissful exercise to compare these 15 reflection pairs and 5 self reflecting artifices of 6 place value system with the corresponding 10 place values.
20. The comparative table shall be as under:-

Sr. no.	Comparative Value	Features
01 6 PVF 10 PVF	(01, 10) 01, 06	The pairing of 01 and 06 in ten place Value system is like pairing of First vowel and Sixth vowel.
02 6 PVF 10 PVF	(02, 20) 02, 08	The pairing of 02 and 08 is like pairing Of $1^3 + 1^3$ with 2^3
03 6 PVF 10 PVF	(03, 30) 03, 18	The pairing of 03 and 18 is like roles of 3 space as domain and 3 space as dimension Fold of (3, 4, 5, 6, 7)
04 6 PVF 10 PVF	(12, 21) 08, 13	The pairing of 8 and 13 is like pairing of 8 solid boundary Components of 4 space With hypercube 4 as 13 edged cube
05 6 PVF 10 PVF	(04, 40) 04, 24	The pairing of 4, 24 is like 4 space as dimension And 6 such Dimensions needed for 6 space
05 6 PVF 10 PVF	(04, 40) 04, 24	The pairing of 4, 24 is like 4 space as dimension And 6 such Dimensions needed for 6 space
06 6 PVF 10 PVF	(13, 31) 09, 19	09 and 19 are sequential At the second place with First place value being Constant
07 6 PVF 10 PVF	(05, 50) 05, 30	05 and 30 are 1×5 and 6×5
08 6 PVF 10 PVF	(14, 41) 10, 25	10 and 25 are like $5 + 5$ And 5×5

09 6 PVF 10 PVF	(23, 32) 15, 20	15 and 20 are like 3×5 And 4×5
10 6 PVF 10 PVF	(15, 51) 11, 31	11 and 31 are like Transcendence at the Second place
11 6 PVF 10 PVF	(24, 42) 18, 26	18 and 26 are like pairing Of (3, 4, 5, 6) with (5, 6, 7, 8)
12 6 PVF 10 PVF	(25, 52) 17, 32	17 and 32 is like $16+1$ And 16×2
13 6 PVF 10 PVF	(34, 43) 22, 27	22 and 27 is like (4, 5, 6, 7) And $(3 \times 3 \times 3)$
14 6 PVF 10 PVF	(35, 53) 23, 33	23 and 33 is like sequential increase/decrease at first place
15 6 PVF 10 PVF	(45, 54) 29, 34	29 and 34 is like NVF (BLACK) and NVF (DARK)

21. Now if the above 15 pairings would have been the pairing as such for 10 place value system then these would have been of NVF formats as follows

Sr. no.	RP 10 PVF	RP 06 PVF
01	(01, 10)	01, 14
02	(02, 20)	02, 32
03	(03, 30)	03, 50
04	(12, 21)	20, 33
05	(04, 40)	04, 64
06	(13, 31)	09, 51
07	(05, 50)	05, 82
08	(14, 41)	22, 65
09	(23, 32)	35, 52
10	(15, 51)	23, 63
11	(24, 42)	40, 70
12	(25, 52)	41, 84
13	(34, 43)	54, 71
14	(35, 53)	55, 85
15	(45, 54)	73, 90

22. Illustrative cases: Case 1 (01, 10)

Here '0' is the place value and '1' is the first numeral. The double digit expression 01 and 10 swap their places and as such constitute a reflection pair.

As such in every place value system, (other than that of '1' place value system itself where the place value and first, infact the only numeral, would have common placement), the availability of distinct place value and distinct numeral (numerals) shall be accepting double and higher digit expressions, and as such their would follow the $(n-1) \times (n+1)$ format for all values of n and accordingly $01=1$ and $10=n$ shall be constituting a pairing

(1, n) in terms of which the corresponding measuring rods shall be having on repeated application, starting afresh with '1'.

23. Illustrative cases: Case 2 (45, 54)

This for ten place value format, is for partitioning of the biggest numerals (9) as 4 & 5 and a swapping of places for them. And this reflection pair (45, 54) emerges to be the end placement of the mirror line of self reflecting artifices of the upper part of the matrix format for the double digit numbers of ten place value system.

In case of largest numeral even, there shall be a self reflecting artifice like for 7 place value system, the biggest numeral would be 6 which would split as 3 and 3 and so the self reflecting artifices 33 as well as 66.

However in case of 6 place value system, the biggest numeral shall be 5 and it shall be proving split as

2 and 3 and the corresponding reflection pair (23, 32) shall be along the mirror line of self reflecting artifices of the upper part of the matrix format.

23. One shall have a pause here and think about the another feature of osculation whereby the squares values sequence unfold along 2 x n matrix format for all values of n. Sequentially as 2 x 2, 3 x 3, 4 x 4 and so on.

24. Matrix 2 x 2=4 2² is a four numbers expression:

00 01 =04 as sum of 4 numbers of matrix 01 02

25. Matrix 2 x 3=6 is a six numbers expression:

00 01
01 02 =09=3² as sum of 6 numbers of matrix 02 03

26. Matrix 2 x 4=8 is a eight numbers expression:

00 01
01 02 =16=4² as sum of 8 numbers of matrix 02 03
03 04

27. Matrix 2 x 5=10 is a ten numbers expression:

00 01
01 02 =25=5² as sum of 10 numbers of matrix 02 03
03 04
04 05

28. The use of osculation with format of square within circle and circle within square and likewise sphere within cube and cube within sphere is to be availed to reach at the value of Π uptill 33 places of decimal with a self contained master key, as pointed and announced by Swami Bharti Krshna Tirtha Ji Maharaj while preserving 32 places values in blocks of 16 values for $\Pi/10$ as under

.3 1 4 1 5 9 2 6 5 3 5 8 9 7 9 3
2 3 8 4 6 2 6 4 3 3 8 3 2 7 9 2

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