

**Vedic Mathematics, Science & Technology
Teacher Course**

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COUNTS AND GAPS COUNTS

This day the course focus is upon 'Counts and gaps counts'.
It four folds aspects being taken up are as follows:

- 37. Difference value sequences of consecutive dimensional orders synthesis of equal numbers of dimension
- 38. Counts and gaps counts
- 39. About this year course
- 40. Ganita Sutras and Ganita Upsutras

The values being covered are to be taught as lessons numbers 37 to 40 to the students of 4-space Vedic Mathematics, Science & Technology.

LESSON-37

**DIFFERENCE VALUE SEQUENCES OF
CONSECUTIVE DIMENSIONAL ORDER(S)
SYNTHESIS OF EQUAL NUMBERS OF DIMENSION**

- 1. The difference value sequence for (0, 1, 2, 3, 4, 5, 6 and higher number of dimensional comes to be:
(0, -1, -1, 0, 2, 5, 9, 14, 20, 27 ...).

2. Firstly let us notice the sequential differences values of consecutive values of the above sequence (2, 5, 9, 14, 20, 27 ...).
3. This range of value (2, 5, 9, 14, 20, 27) accepts re-organization as:
 $[(0+2), (0+2+3), (0+2+3+4), (0+2+3+4+5), (0+2+3+4+5+6), (0+2+3+4+5+6+7) \dots]$.
4. It is evident that the differences of values of above ranges for its consecutive pair of values come to be (2, 3, 4, 5, 6, 7 ...).
5. One may have a pause here and take note that this range of values as dimensional orders takes us to sequence of dimensional spaces (4-space, 5-space, 6-space, 7-space, 8-space ...).
6. One may further have a pause here and take note that as the origin constitutes a compactified range, as such this range sequentially unfolds :
 - (i) 4-space
 - (ii) 4-space and 5-space
 - (iii) 4-space, 5-space, 6-space
 - (iv) 4-space, 5-space, 6-space and 7-space
 - (v) And so on.
7. Accordingly there is sequential transcendence of dimensional orders as :
 - (i) Spatial dimensional order
 - (ii) Spatial dimensional order and solid dimensional order
 - (iii) Spatial dimensional order, solid dimensional order and creative dimensional order
 - (iv) Spatial dimensional order, solid dimensional order, creative dimensional order and transcendental dimensional order.

- (v) And so on.
- 8. Parallel values sequence comes to be of value as under :
 - (i) Value 2
 - (ii) Value $2+3$
 - (iii) Value $2+3+4$
 - (iv) Value $2+3+4+5$
 - (v) And so on
- 9. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting and to glimpse and imbibe the above format features.

LESSON-38

COUNTS AND GAPS COUNTS

1. Counts and gaps counts are of different generic.
2. Counts (1, 2, 3, 4, 5, 6 ...) and their gaps accept counts of different generic.
3. Counts (1, 2, 3, 4, 5, 6 ...) accepts placement of value as under at their middle placement:
(1, $3/2$, 2, $5/2$, 3, $7/2$, 4, $9/2$...).
4. Taking counts (1, 2, 3, 4, 5, 6 ...) as linear order counts, the gaps counts sequence (1, $3/2$, 2, $5/2$, 3, $7/2$, 4, $9/2$...) is a sequence of counts of axes of spatial order of 4-space.
5. As such, spatial order leads to values sequence (2, 3, 4, 5, 6 ...).
6. One may have a pause here and take note that (5, 6, 7, 8, 9 ...) numbers of dimensions lead to difference values sequences (5, 9, 14, 20, 27, ...) leads us to:
 - (i) $5 = 5 \times 1$
 - (ii) $9 = 6 \times 3/2$

- (iii) $14 = 7 \times 2$
 - (iv) $20 = 8 \times 5/2$
 - (v) $27 = 9 \times 3$
7. It leads us to the interrelationship of numbers of dimensions sequence (5, 6, 7, 8, 9 ...) and of difference value sequence (5, 9, 14, 20, 27 ...) and gaps counts sequence (1, $3/2$, 2, $5/2$, 3, $7/2$...).
 8. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting of trans and to glimpse and imbibe the above format and features.
 9. One shall further revisit the above second phase learning focus steps and to imbibe the same to acquire proper insight and appropriate enlightenment of spatial order creator's space.

LESSON-39

ABOUT THIS YEAR COURSE

1. Vedic Mathematics course is of four year duration.
2. Presently we are in second year of this course.
3. Previous year course has been devoted to 3-space mathematics.
4. Present year course focus upon 4-space mathematics.
5. 3-space mathematics approaches space within a 3 dimensional frame of 3 linear dimensions.
6. 4-space mathematics approaches space interms of a dimensional frame of quadruple spatial dimensions.
7. 3-space mathematics is designated as mathematics of a linear order as it is worked out interms of linear unit.

8. Now during this year we shall be working out mathematics with spatial units.
9. Linear unit, as such avails number value 1. Spatial units shall be availing number value 2 as a unit.
10. As line becomes the basic mathematical 2 of 3-space mathematics, surface is going to be basic mathematical 2 of 4-space.
11. Vedic system accepts 4-space as Creator's space.
12. Lord Brahma, four head lord, is the over lord of this space.
13. Idol of lord brahma is the basic creation format.
14. Creation along this format will remain central focus during this year.
15. While the focus during previous year has been upon arithmetic along algebraic format, during this year the focus is going to be upon algebra upon geometric format.
16. Pervious year focus has been upon Ganita Sutras 1 and 2 as well as upon Ganita Upsutra 1 and 2. During this year the focus is going to be upon Ganita Sutras 3 to 7 and Ganita Upsutras 3 to 9.
17. The working focus during previous year has been upon digit by digit handling of numbers values. During this year focus is going to be upon paired digits approach to number values.
18. Cube, as representative regular body of 3-space has been availed for consolidation of 3-space mathematics as a bases base for 3-space VMS&T. during this year the structural format of hypercube 4 would be availed to consolidate values of 4-sapce mathematics as bases base of 4space VMS&T.
19. During previous year cube was also visited within a cube.

20. During this year cube would be visited within 4-space (domain/hypercube 4).
21. Further during this year hypercube 4 as well would be visited within hypercube 4.
22. Focus during this year is also going to be upon different role of 4-space which permit consolidated expression as 4x4 matrix/gird as follow:

12	3	4
23	4	5
34	5	6
45	6	7

23. One may have pause here and take note that it shall be bring us focus, 4 basic roles of 4-space, namely:
 - i.4-space as origin fold.
 - ii.4-space as domain fold.
 - iii.4-space as boundary fold.
 - iv.4-space as dimension fold.
24. 4-space dimension fold sequentially leading to 4-space as boundary of 5-space, 4-space dimension of 6-space and 4-space as dimension leading to 7-space as origin.
25. One may have further have a pause here and take note that format feature of idol of lord brahma are parallel to the format feature of hypercube 4 as four folds manifestation layer with 2-space as dimension fold, 3-space as boundary fold, 4-space as domain fold and 5-space as origin fold.

26. This is parallel to four head lord brahma having a pair of eyes in each head and lotus seat of lord being of eight petals and within cavity of heart of lord brahma is the seat of transcendental lord shiv, five head lord with 3 eye in each head and with the grace of transcendental lord shiv, Lord Brahma multiplies as 10 Brahma in a shiv lok (5-space) manifesting creative boundary (4-space as boundary) of 10 components.
27. The blissful fruit of this year learning would be that one shall be inciting oneself for transcending through manifested creation format of 4-space and shall be transcending blissful to transcendental domain (5-space).
28. Within it be glimpsed and imbibed during this year learning our beginning is to be of mental state of linear order 3-space and end fruit of learning through year of creator the space shall be blissfully putting us at phase and stage of transcending from format of hypercube 4 to format of hypercube 5. ■

LESSON-40

GANITA SUTRAS AND UPSUTRAS

1. Originally whole range of knowledge constituting one Ved.
2. This knowledge was organized by Maharishi vedvas into four Vedas namely rig-Ved, yjar-ved, sam-ved and atharv-ved.
3. Atharv Ved is the Ved of reaching at the values of first 3 Vedas namely rig Ved, yjar Ved and Sam Ved.
4. Ganita Sutras and upsutras are appendix portion of atharv Ved.

5. Appendix portion of atharv Ved are the reservoir of applied values of the pure value of the Ved.
6. These applied values of pure value of the Ved manifest as up Ved of the Ved.
7. Sathapatya up Ved is the Ved of athrav Ved.
8. As such the structural key of Ganita Sutras and upsutras are pressured and are lively along the format of Sathapatya measuring rod.
9. Man-sarah is the scripture of Sathapatya upved.
10. Lord Vishnu, the over lord of 6-space, is the presiding deity of Sathapatya measuring rod.
11. Lord Brahma, over lord of 4-space, is the presiding deity of measuring rod.
12. Ganita Sutras and upsutras mathematics domain permits chase along the format of Sathapatya measuring rod.
13. This settles mathematical domain of Ganita Sutras and upsutras being of a format of 6-space domain enveloped within transcendental boundary (5-space domain as boundary).
14. As 6-space place the role of origin of 5-space, as such to glimpse and imbibe the values of Ganita Sutra and upsutras, the same as to be glimpsed as origin of transcendental domain.
15. This makes sole syllable Om as the transcendental reservoir of the virtues of manifesting as Ganita Sutra and Ganita Upsutras.
16. With it the values and virtues of reservoir of sole syllable Om is available with us to tape Ganita Sutra 1 as the source sutra and Ganita Upsutra 1 as the source upsutra.
17. The informal invocation innocence fulfilled young minds begins with the first breath of the newly born.

18. This informal education is continued further by the parents. Even teacher as well, at the initial stage pickup this thread itself till formal education initiation step is consciously taken and accepted by schooling system.
19. Formal education focus upon the values of Ganita Sutra 1 and Ganita Upsutra 1.
20. Primary education covers values of Ganita Sutras 1 and 2 together with that of Ganita Upsutras 1 and 2 aiming to go parallel with the natural progression steps of intelligence field with young minds.
21. From this stage, formal middle class level mathematics course begins and it perfects handling of number values.
22. With perfection of this skill, the real Vedic Mathematics education begins.
23. Parallel to the present day schooling calander, this education extends over four year duration of high and higher secondary classes.
24. This education stand phased as of 3, 4, 5, 6 space mathematics focus.
25. Ganita Sutras 1 and 2 together with Ganita Upsutras 1 and 2 become the learning focus of first year (class 9).
26. Ganita Sutras 3 to 7 and Ganita Upsutras 3 to 9 remain the learning focus of second year (class 10).
27. A step head, Ganita Sutras 8 to 11 and Ganita Upsutras 10 and 11 emerge as the learning focus of third year (class 11).
28. Learning completion comes to be with Ganita Sutras 12 to 16 and Ganita Upsutras 12 and 13 during fourth and final year (class 12).
29. This learning has the feature of approaching arithmetic on algebraic format, algebra on geometric format,

geometry on manifestation format and manifestations on transcendence format.

30. Transcendence itself inherently goes self-referral and attained unity state.
31. As such during these four year duration, sequential focus remains upon 3-space, 4space, 5-space, and 6-space.
32. This brings us face to face with linear spatial solid and creative dimensional orders units of measures.
33. One shall sit comfortably and permit the transcending mind to visit and revisit the text of Ganita Sutras and upsutras.
34. This text avail just 519 letters. As such one can memories this text with a few recitation only.
35. Ones the text stand imprinted in the intelligence field the rest whole exercise make Vedic Mathematics a natural mental mathematical process.
36. With it, the first formal step of learning may be taken as to memories the texts of Ganita Sutra and upsutras.
37. The second learning step comes to be to respect the sequence and order of the texts. This respect is to be maintained in respect of the sequence and order of the values and features accepted by the individual letters of the text.
38. Within the mind the one shall approach each and every formulation and each and every sub formulation and each and every sutra and upsutra.
39. This respect for the organization format features of the text of Ganita Sutra and upsutras will help sadhkas/students of Vedic Mathematics to glimpse and imbibe the mathematical domain of Ganita Sutra and upsutras as self-referral origin reservoir of transcendental domain.

40. With it one shall be perfecting one's intelligence along one's consciousness format itself.
41. It is going to be the attainment of learning of this Vedic Mathematics course to imbibe the value of mathematical domain of Ganita Sutra and upsutras.

