Vedic mathematics, Science & Technology
Textbook
Class IX
(3-space)

VMS & T

1. Vedic mathematics, Science & Technology (VMS & T) is an Ancient Wisdom Discipline.
2. VMS & T is an wholesome Discipline while Mathematics, Sciences and Technologies are individualistic Disciplines
3. Mathematics covers dimensional spaces.
4. Sciences cover space contents and technologies cover space contents.
5. VMS & T covers the wholeness of Existence Phenomenon of dimensional space.
6. Vedic Systems work out Existence Phenomenon along manifestation formats as an integrated Phenomenon of 'Triloki and Trimurti'.
7. Triloki and Trimurti Phenomenon is of phases and stages being designated as (i) vishwa (Triloki) and (ii) (a) Lord Brahma, (b) Lord Shiv and (c) Lord Vishnu (Trimurti)
8. Formats and features of these four phases are parallel to the format and features of 3-space, 4-space, 5-space and 6-space respectively.
9. In this background, VMS & T course for High and Higher secondary classes is a sequential organization along formats representative regular bodies of 3, 4, 5 and 6 space respectively.
10. The focus of VMS & T course during class IX is to remain the format of hyper cube-3 , while the focus of class 10 is to be upon the format of hyper cube 4 and focus of class 11 and class 12 is to be upon the formats of hyper cube 5 and hyper cube 6 respect respectively

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3-space VMS & T

3-space Mathematics

11. 3-space is a linear order space. as such, 3-space Mathematics is the Mathematics of linear units i.e. (1 as 1).

3-space Sciences & Technologies

12. Sciences of 3-space work out 3-space matter
13. Technologies of 3-space deal with 3-space bodies.

3-space VMS & T

14. VMS & T of 3-space phases chases Existence Phenomenon along the format of hyper cube 3, a four fold manifestation layer of line (1-space in the role of dimension, 2-space in the role of boundary, 3-space as domain and 4-space in origin.
15. The features and values of this format manifests as set up of cube
16. Of this format, the transcendence permissibility at the origin fold is of special significance as in terms of it the transition form the existing phase to the next phase of hyper cube 4 format is a reach;
17. With the focus of 3-space VMS & T phase of Existence Phenomenon attaining transition for the next phase and stage of Existence Phenomenon, makes this attainment as the End values of 3-space VMS & T.

Cube as hyper cub-3
18. In the light of the above, it can be said that the focus of learning during present year course of VMS & T would be upon 'cube as hyper cube 3'.

Vishwa Rupa (विश्व रूपः)

19. Features and format of Vishwa Rupa are described as a three head person with one eye in each head and 6 arms.
20. These formats and features of Vishwa Rupa are parallel to features and formats of cube / hyper cube 3 as that parallel to three heads are three dimensions.
21. Further parallel to one eye in each head is linear dimensional order (linear axis) of three dimensional frame.
22. Still further, parallel to 6 arms are six surface plates / six components of spatial boundary of cube / 3-space.
23. One heart and parallel to it center of cube / origin of 3-space being the seat of creator (presiding deity of 4-space), brings to focus a fourth fold (origin fold) of hyper cube 3 format.

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LESSON – 01
CUBE (⬚)

Overview of lesson

1. This is the first lesson. It introduces 'cube', as the representative regular body of 3-space.
2. It may be accepted by way of definition that the representative regular body of 3-space has equal preference for each of the three dimensions. No dimension (axis) is preferred over any other dimension (axis).
3. One axis is taken as accepting length as unit for measurement. The pair of axes may be taken as accepting area unit for measurement. All the three axes to be taken as accepting volume unit for measurement.
4. Three linear axes and their sole common meeting point constitute / construct a three dimensional frame of linear axes
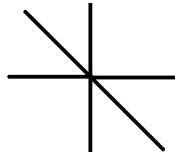

5. It may be taken by way of definition that the common meeting point of three axes is the origin of three dimensional frame. And that each axis splits into a pair of half axes joined at the origin.
6. Points, Lines, Surfaces and Solids are four distinct geometric bodies of distinct features.
7. The focus while visiting the set up of the cube, representative regular body of 3-space should be as to how these quadruple geometric bodies namely Points, Lines, Surfaces and Solids are marking their presence in the set up of cube.
8. Also the center of the cube be visited with focused attention being part of

volume of cube, as well as being the seat of origin of three dimensional frame. **✱**

Text of Lesson

1. Cube (⬚) is the representative regular body of 3-space.
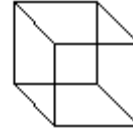
2. Representative regular body is one which does not distinguish / prefer one dimension over another dimension.
3. 3-space accepts three linear dimension frame for its bodies
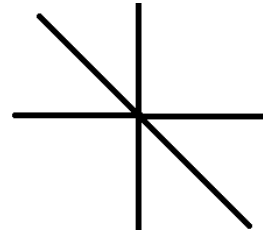
4. Linear dimension accepts 'length' as a 'unit'; pair of linear dimensions (designated as length unit and breadth unit respectively) accept 'area' as a unit, and all the three dimensions (designated as a length unit, breadth unit and height unit respectively) accept as 'volumme unit'.
5. The common point (joint) of three dimensions (of length, breadth and height units) is designated as origin of a three dimensional frame of linear dimensions.
6. Centre of cube (⬚) super imposes upon origin of three dimensional frame.
7. The set up of 'cube' with its centre super imposed upon the origin of a three dimensional frame and each dimension coordinates the centres of a pair of parallel surface plates of cube makes complete set up of regular body of 3-space.

8. The complete set up of cube (⌘) as such makes out a set of 31 geometric components, namely
   (i) 8 corner points of cube (⌘)
   (ii) 12 edges of cube (⌘)
   (iii) 6 surfaces of cube (⌘)
   (iv) 1 volumme of cube (⌘)
   (v) 3 dimensions of 3 dimensional frame
   Total 8 + 12 + 6 + 1 + 3 + 1 = 31 structural (geometric) components

Exercises

I. Define and tabulate different conceptual of technical terms of lesson

Hint :

Cube (⌘), representative regular body, 3-space, dimension, origin, dimensional frame, corner point, edge, surface, volumme & centre of cube, length, breadth & height units, length area and volume units, complete set up of cube, structural geometric components, etc.

II. Visit and revisit the following :
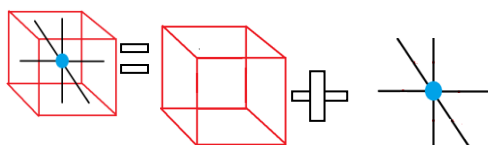
Note :-

The designations / formulations 'cube' and 'घनः' permit chase in terms of number values formats in terms of numbers range '1 to 26' for English alphabet letters A to Z. Further transcendental (5-space) code values are associated with the Devnagri alphabet letters as under, which give rise to NVF (Cube) = 31 and TCV (घनः) = 27.

Devnagri alphabet format
Transcendental code values format

Vowels

Letter	अ	इ	उ	ऋ	लृ	ए	ओ	ऐ	औ
TCV values	1	2	3	4	5	6	7	8	9

Consonants
5 x 5 varga consonants

Letters	क	ख	ग	घ	ङ
TCV values	1	2	3	4	5

Letters	त	थ	द	ध	न
TCV values	4	5	6	7	8

Letters	प	फ	ब	भ	म
TCV values	5	6	7	8	9

Other letters

Letters	य	व	र	ल
TCV values	1	3	5	7

Letters	श	ष	स	ह
TCV values	2	3	6	9

Letters	•	ʊ	ʊ̈	ʊ	:	≍	⌒	∞
TCV values	9	10	11	12	13	14	15	16

Objective Type questions and Answers

I. How many are
(i) Axis of three dimensional frame? A. 3

(ii) Corner points of cube? A. 8

(iii) Edges of cube? A. 12

(iv) Surfaces of cube? A. 6

II. Body of
(i) 0-space is point? A. Point
(ii) 1-space? A. Interval.
(iii) 2-space? A. Square

(iii) 3-space? A. Cube
(iv) Dimension of Cube? A. Linear.
(v) Boundary of cube? A. Spatial
(vi) Domain of cube? A. Solid.
(vii) Origin of cube? A. Hyper solid.

III. How many are components of
(i) cube? A. 31.
(ii) boundary of cube? A. 6
(iii) three dimensional frame? A. 4

IV. How many are sub cubes of cube
A. 8

V. How many are the components of geometric envelope of cube?
A. 26

VI. Give the split of 26 components of geometric envelope of cube
(i) 8 corner points.
(ii) 12 edges.
(iii) 6 surface plates

VII. What is the distinguishing feature of three dimensional frame embedded in corner of the cube?
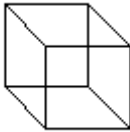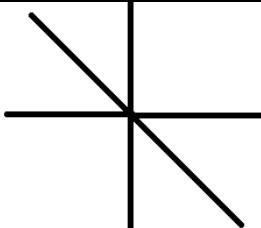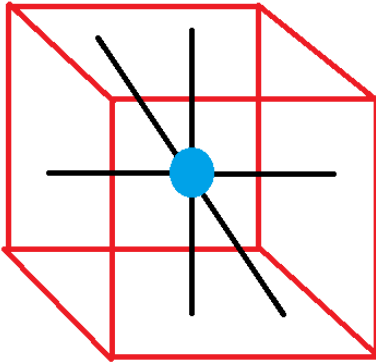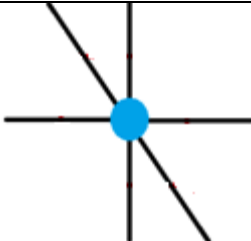A. It is of half dimensions set up.

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Short questions
Define following technical terms.

1. Cube (⬛)
2. Representative body of 3-space
3. Three linear dimension
4. 'length' as a 'unit';
5. 'area' as a unit,
6. 'volumme as a unit'.
7. origin of space
8. origin of dimensional frame
9. Centre of cube
10. The set up of 'cube'
11. Complete set up of cube
12. Corner points
13. Edges
14. Surfaces
15. Volumme
16. Structural components
17. Geometric components

Elaborative questions
1. Elaborate the glaring features of concepts re-personated by following figures.

Sn.	Figure	
1		
2		
3		
4		

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LESSON – 02
GEOMETRIC ENVELOPE OF CUBE (⬚)

Overview of lesson

1. We have learnt during previous lesson about the set up of cube as of components of format and features of (i) points (ii) Lines (iii) Surfaces and (iv) Volume.

2. Of these four types of components first three components namely (i) points (ii) Lines (iii) Surfaces constitute a class which does not contribute towards volume.

3. Though corner points, edges and surface plates of the set up of cube do not contribute towards volume of the cube but there together play a significant rule of enveloping 'volume', as a bag containing 3-space content lump.

4. During this lesson the focus is upon this geometric envelope of cube.

5. The significance of role of geometric envelope deserve to be comprehended well. The components of geometric envelope and there features deserve to be appreciated.

6. The imbibing of the format and features of geometric envelope of cube, on the whole, and of its individual categories of components, as well as the number of components of every category will help acquire insight about the significance of the role of geometric envelope of cube.

7. In our daily life in the world around us.

8. We come across fruits and vegetables of various types having their own characteristics types of geometric envelopes for the fruit / vegetable contents.

9. At the end of text of the lesson to provide further insight about the set up of cube, advance exercises are indicated. Though these advance exercises relate to features of the set up of cube, which would be taken up in the subsequent lesson but here itself to provide insight about further features, same are being mentioned to ensure that one does not get an idea that everything gets sealed within geometric envelope as a volume which will not permit transcendence any further.

10. It is for this reason that it is being impressed upon teachers that there shall take care that young minds do not acquire mental blocks about the set up of the volume of the cube.

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Text of Lesson

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1. The structural set up of cube as a set of 31 components
   i. 8 corner points,
   ii. 12 edges,
   iii. 6 surfaces,
   iv. one volumme,
   v. 3 axes and
   vi. 1 origin),

2. This set up of 31 components, firstly permits its classification being of two parts,
   namely the first part consisting of

i. 8 corner points

ii. 12 edges,

iii.   6 surfaces

(iv)   and 1 volumme an

And second part consisting of

(v) 3 axes

(vi) and 1 origin.

3. The above **second part** consisting of 3 axes and 1 origin is designated as the **three dimensional frame**.

4. The **first part** which consist of 27 components namely (8 corner points, 12 edges, 6 surfaces and 1 volumme) further permits classification in **two parts, namely**

first part consisting of

i. 8 corner points

ii. 12 edges,

iii.   6 surfaces

and **second part** consisting of

(iv)   and 1 volumme

5. The above single component (second part), namely 'volume' is designated as 'domain part'.

6. The set up of 26 components of (first part) i.e. 8 corner points, 12 edges and 6 surfaces together synthesize a **geometric envelope** for the domain / volume part of the cube.

7. Each of these 26 components of geometric envelope is of zero volume as corner points are devoid of length, breadth and height, while edges are devoid of breadth and height, and surfaces are devoid of heights.

8. With geometric envelope having no contribution towards the volumme of the cube, as such one way to reach at the geometric envelope of the cube would be to devoid the cube of its volume.

9. As the volumme is a manifested lump of 3-space content, and as this manifestation is within a three dimensional frame, as such the devoiding steps for the cube of its volume, naturally can be in terms of the dimensions which are three in number.

10. This that way shall be leading to three steps, the first being in terms of a single dimension, the second being in terms of a pair of dimensions and third being in terms of all the three dimensions.

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11. Here it would be relevant to note that the volumme of the cube permits simultaneous existence of 'interval, square and cube' within a cube.
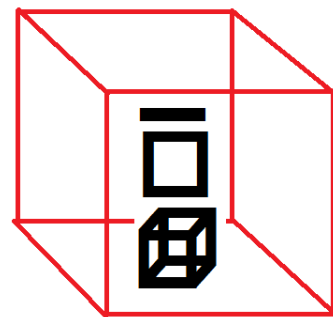
12. Further it also would be relevant to not that interval is a structural set up of three components namely length and a pair of end points of the interval.

13. Square is a structural set up of 9 components namely (4 corner point, 4 sides and 1 area).

14. Cube is a structural set up of 27 components consisting of 8 corner points, 12 edges, 6 surfaces and 1 volumme.

15. The artifices triple (3, 9, 27) permits re-organization as $(3^1, 3^2, 3^3)$.

16. This further permits re-organization as $[(1+2)^1, (1+2)^2, (1+2)^3]$

17. This organization format $[(1+2)^1, (1+2)^2, (1+2)^3]$ is a particular case of general organization format $(A+2)^n$, n = 1, 2, 3 and A to be any unit.

18. This way, the divoiding of cube of its volume, shall be leading us to the geometric envelope for the format for manifestation of volumme / domain of 3-space content.

19. The feature of geometric envelope of cube being of 26 components would bring into the format and feature of number '26'.

20. Here it would be relevant to note that the numbers range 1 to 100 has precisely a range of 26 primes (including 1), namely

    (1, 2, 3, 5, 7, 11,13, 17, 19,
    23, 29, 31, 37, 41, 43, 47,
    53, 59, 61, 67, 71, 73, 79,
    83, 89 and 97).

21. The geometric envelope set up of 26 components and the range of 26 primes over the range of numbers up till 1 to 100, on their chase will help workout the parallel formats and features of geometric formats on the one hand and artifices of numbers on the other hand.

22. To have further insight about the insight of the format and features of the geometric envelope, one shall have a fresh visit to the set up of cube and its geometric envelope of 26 components with split of 8 corner points, 12 edges and 6 surfaces enveloping volume of the cube.

23. It would come to attention that in each of the corner points of the cube is embedded a three dimensional frame of half dimensions.

24. It is this feature of the geometric envelope, which deserve to be chased further for its full comprehension and appreciation for imbibing its features and values to have thorough insight about it.

25. There being 6 surfaces, as such with their presence as 0, 1, 2, 3, 4, 5 and 6 surfaces, there would be 7 versions of cube.

26. Cube as 3-space body having 7 versions brings to focus the coordinated presence of artifices pair (3 and 7).

Exercises

I. It would be blissful to go through the feature of 'Trishapta (3 and 7) concept and format of Vedic Systems and to acquire insight about Vedic Systems approach to the set up of 3-space / 3-space content and 3-space bodies accepting 7 versions of 7 geometries of 3-space.

II. It further would be very blissful to revisit the structural set up of the cube, in the light of following structural features of this set up:

## ADVANCE EXERCISES FOR FURTHER INSIGHT ABOUT THE SET UP OF CUBE

TRISHAPTA (3 AND 7)

"Yeh Trishapta Paryanti Vishwa" (This world is enveloped by Trishapata i.e. 3 and 7). Parallel to it is that 3-space (▣) has 7 geometries of signatures (0, 1, 2, 3, 4, 5, 6) corresponding to the cube with no surface plate, cube with I Surface plate, cube with 2, 3, 4, 5 & 6 surface plates respectively

ORIGIN OF 3- SPACE (▣)
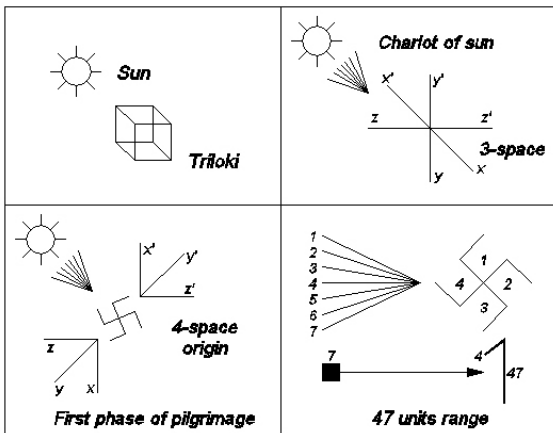
Things transform just with the attention at the origin. Let us have attention at the centre of cube / origin of 3-space (▣) and everything starts transforming; the cube splits into 8 sub-cubes and 3-space (▣) splits into 8 octaves. The origin accepts 8 sub-cubes / 8 octaves enveloping. The 4-space (⌗) flourishes from within at the seat of origin and everything transforms from 3-space (▣) to 4-space (⌗).This may be depicted and chased as pilgrimage on chariot of Sun driven by seven horses:
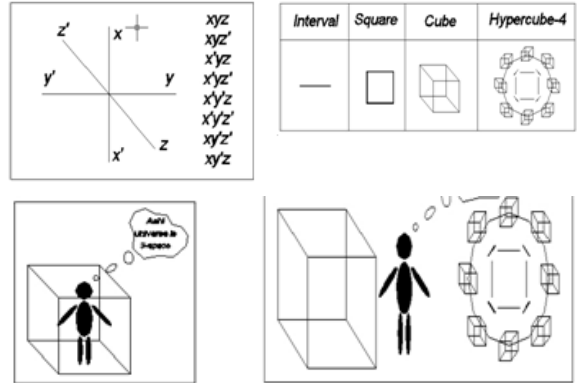
The eight octants cut and emergence of 4-Space at the origin may be further depicted as that with unfolding of the seal of the origin of 3-Space(▣), the 3-Space(▣) domain /Content would flow out and manifest as the boundary in a creator's space. That is as a boundary of hyper cube-4.

Still further, this focus and attention at origin of 3-Space (▣) would help transform and transit from the old mental block of working as if we are existing in 3-Space(▣) to new format for working in 4-Space. This may be depicted as an expression of old mental block state prior to attention and focus upon the origin of 3-Space(▣) and subsequent to transition and transformation to new format attained with attention and focus at the origin of 3-Space(▣) as a seat of 4-Space.

Objective type questions and answers

Q1. How many are the components of geometric envelope of cube?
A. 26

Q2. What are the different categories of components of geometric envelope of cube?
A. 1. Point / corner points 2. Edges and 3. Surface plates

Q3. What is category wise distribution of components of geometric envelope of cube?
A. 1. 8 corner points, 2. 12 surfaces and 3. 6 surfaces.

Q4. What is the glaring feature of three dimensional frame embedded in corner points of cube?
A. It is three dimensional frame of half dimension.

Q. 5. What is the other features of dimensional frames embedded in corner points of cube?
A. The dimensional axes are of inward orientations that is towards the domain part i.e. towards insight the set up of geometric envelope.

Q. 6. What is contribution of geometric envelope towards volume of the cube.
A. Geometric envelope does not contribute towards volume of the cube. The geometric envelope simply envelopes the volume of the cube.

Q. How the inner three dimensional frame of cube with origin at center of the cube distinguishing itself from the three dimensional frame in corner of the cube?
A. The inner three dimensional frame of cube is of full dimension while the three dimensional frame within corner of the cube is of half dimension.

Q. How many versions are there of cube
A. 7.

Q How different versions of cube distinguish themselves from each other?

A. The presence of number of surface plates distinguish between different versions of cube.

Q. What is mathematical message of formulation 'Trishapta'.
A. Trishapta means 3 and 7. This inter-relationship of artifices pair (3 and 7) is parallel to cube as 3-space body having 7 versions

Q What are the distinguishing features of center of cube from other points of cube?
A. Volume. Center is a point of cube (volume) but at the same time it is seat of origin of three dimensional frames as well. As such it has a dual status.

Q. How the center of the cube and corner points of the cube are distinguishable.
A. Center of the cube is part of volume of the cube. While the corener points of the cube are part of the geometric envelope of the cube, but other distinuigh feature is there distinguishing center of the cube from corner points of cube. Center of the cube is origin a three dimensional frame of full dimensions while corner points of the cube are origins of three dimensional frames of half dimensions.

QChase split of cube as 8 sub cubes
A. The split of three dimensional frame of full dimensions and thereby cut of 3-space into 8 octants leads to split of cubes into 8 sub cubes .

DEFINE AND ELOBRATE FOLLOWING TECHNICAL TERMS

1. Geometric envelope
2. The structural set up of cube
3. corner points

4. edges
5. surfaces   *
6. volumme
7. axes
8. origin
9. structural components
10. domain part.
11. geometric   envelope   for   the   domain
12. devoid of length
13. devoid of length, breadth
14. devoid of length, breadth and height
15. devoid of volumme.
16. Single dimensions
17. Pair of dimensions
18. All the three dimensions
19. interval, square and cube
20. end points
21. side of a Square
22. artifices of numbers
23. 26 primes
24. parallel formats
25. organization format
26. three dimensional frame of half dimensions.
27. 'Trishapta
28. Vedic Systems
29. 3-space content
30. 3-space bodies.
31. 8 sub cubes
32. 8 octants
33. 4-space (⛶)

Chase and elaborate the concept and features depicted by following symbolic depiction

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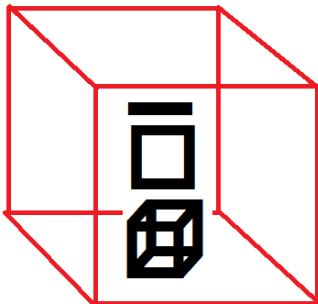
LESSON – 03
7 VERSIONS OF CUBE (▣)

Overview of lesson

1. In previous lesson-02 we have learnt about geometric envelope of cube.
2. The geometric envelope of cube is stitched by eight corner points, 12 edges and 6 surfaces.
3. With points and edges having no contribution towards surface area, as such this envelope and the boundary of cube, as such is spatial in nature and is of six parts consisting of six surfaces plates.
4. With this, from availability of all the six surface plates to the position of absence of all the six surface plates, there are seven versions of cube.
5. Each version of cube is taken as geometric body of parallel (signature / presence of numbers of surface plates) geometry of 3-space.
6. As such there are 7 distinct geometries of 3-space. the concept of different geometries of a dimensional space, as such is being not taken up in the present stage course.
7. However, may be taken by way of definition that distinct nature of body of a dimensional space is there because of distinct geometry of the concerned dimensional space.

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Text of Lesson
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1. Cube with all the six surface plates intact, is only one of the seven versions of cube. The same may be symbolically depicted as under:

2. This version of the cube, with all the six surface plates being intact is taken as cube of signature – 6, taking as that the presence of surface plate would mean it has put its signature (of presence) and that way the presence of all the six surface plates would mean all of them have put their signature of presence which would make this version of cube being the cube of signature 6.
3. A cube with 5 surface plates intact would be the cube of signature 5 and the same may be symbolically depicted as under with black surface showing absence of surface plate and white surfaces marking the presence of surface plates:
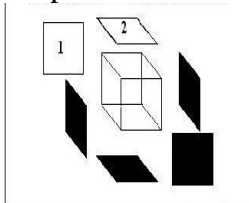
4. A cube with 4 surface plates intact would be the cube of signature 4 and the same may be symbolically depicted as under with black surfaces showing absence of surface plates and white surfaces marking the presence of surface plates.:

5. A cube with 3 surface plates intact would be the cube of signature 3 and the same may be symbolically depicted as with black surfaces showing absence of surface plates and white surfaces marking the presence of surface plates:

6. A cube with 2 surface plates intact would be the cube of signature 2 and the same may be symbolically depicted with black surfaces showing absence of surface plates and white surfaces marking the presence of surface plates.::

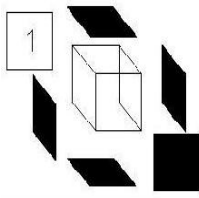7. A cube with 1 surface plates intact would be the cube of signature 1 and the same may be symbolically depicted with black surfaces showing absence of surface plates and white surface marking the presence of surface plate:

8. A cube with absence of all six surface plates is cube of zero signature and same may be symbolically depicted with black surfaces showing absence of surface plates:
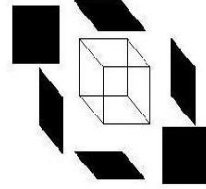
9. The above depictions and designations of seven versions of cube as versions of (signature 6, signature 5, signature 4, signature 3, signature 2, signature 1, signature 0) can be alternatively approached in terms of signature 4 versions with three surfaces plates intact and three surface plates being absent as the middle placement version of cube and parallel to its geometry may be taken as the middle placement geometry of 3-space

10. This middle placement version of cube and parallel to it the middle version of geometry of 3-space may be designated as geometry (3, -3).

11. We may have a pause here and note that this geometry (3, -3) leads to cube version having three surface plates being intact and 3 surface plates being absent, permitting depiction as under:

12. The feature of this middle placement geometry and parallel versions of cube is depicted by the difference of surface plate present and surface plate absent being '0' – (3-3).

13. In reference to it 7 geometries range would be of features sequence values (-3, -2, -1, 0, 1, 2, 3) parallel to the summation values of surface plates

6

15

present and surface plates absent in each case.

14. The sequential depiction for the versions of cube and parallel to it of parallel geometries with the excess of number of plates than the presence of three surface plates would be (1, 2, 3) respectively and the excess absence of surface plates then the number of absence plates (3) for the middle placement, would be of values triple sequence (-1, -2, -3).

15. Here it would be relevant to note that value (-3) would be because of the versions of cube having absence of all the six surface plates, as this excess efficiency is over the middle placement deficiency being (-3).

16. That way the features depiction range (-3, -2, -1, 0, 1, 2, 3) would be parallel to signature depiction range of seven geometries as (0, 1, 2, 3, 4, 5, 6) being of arrangement.

17. This leads us to following comparative tabulation of the arrangements of 7 versions of cube and parallel to it 7 geometries range of 3-space in respect of above both methods of depictions, firstly as signatures (6, 5, 4, 3, 2, 1, 0) and secondly as (0, 1, 2, 3, 4, 5, 6) which is parallel to (-3, -2, -1, 0, 1, 2, 3).

C1= Versions of cube C2 = First type of depiction C3= second type of depiction c4= equivalent type of second type of depiction, SI = Signature, FV= Feature value, EFV (DS)= equivalent feature value (deficiency of surface)

Sn	C1	C2	C3	C4
1		SIG 6	Fv 3	EFV (DS) 0
2		SIG 5	Fv 2	EFV (DS) 1
3		SIG 4	Fv 1	EFV (DS) 2
4		SIG 3	Fv 0	EFV (DS) 3
5		SIG 2	Fv -1	EFV (DS) 4
6		SIG 1	Fv -2	EFV (DS) 5
7		SIG 0	Fv -3	EFV (DS) 6

Exercises

1. Define and elaborate

   a. 7 versions of cube

   b. Parallel 7 geometries of 3-space of second

2. Define and elaborate

   a. 0 signature version of cube and parallel zero signature geometry of 3-space
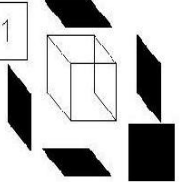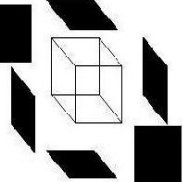
b. 1 signature version of cube and parallel zero signature geometry of 3-space
c. 2 signature version of cube and parallel zero signature geometry of 3-space
d. 3 signature version of cube and parallel zero signature geometry of 3-space
e. 4 signature version of cube and parallel zero signature geometry of 3-space
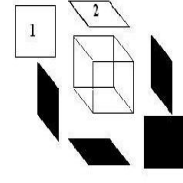f. 5 signature version of cube and parallel zero signature geometry of 3-space
g. 6 signature version of cube and parallel zero signature geometry of 3-space

3. Define and elaborate
   a. first type of depiction of 7 versions of cube
   b. second type of depiction of 7 versions of cube
   c. equivalent depiction for second type of depiction of 7 versions of cube.

4. Define and elaborate the following symbolic depictions

Sn	C1
1	
2	

3	
4	
5	
6	
7	

5. Define and elaborate the following technical terms
1. versions of cube
2. spatial boundary'.
3. 2-space content.
4. zero area point
5. six surface plates.
6. 'interval'.
7. 'square'
8. signatures as mark of presence
9. 7 geometrics of 3-space
10. First set of triple plates
11. Second set of triple plates .
12. dual status
13. zero signature geometry
14. middle placement geometry

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LESSON – 04
EIGHT OCTANTS CUT OF 3-SPACE

Overview of lesson

1. Three dimensional frame cuts space into eight octants.
2. Parallel to it when origin of three dimensional frame is of placement at center of the cube, the cube perits its split into 8 sub cubes.
3. This feature of split of space in terms of three dimensional frame into 8 octants and parallel to it the split of cube into eight sub cubes deserve to be chased to be chased
4. This chase would bring to focus the feature of the cube as that in all the eight corner points of cube there is embedded a three dimensional frame of half dimensions.
5. Further as that the orientations of dimension are inward i.e. towards and along the geometric envelope of cube.
6. With it from both end points of each edge there is a meeting point at middle of the edge of the pair of dimensions of opposite orientations which neutralized at the middle and make the middle point of an edge being a synthetic joint which ultimately leads to the split for the cube into 8 sub cubes.
7. As such the basic focus of the present lesson is upon the three dimensional frames embedded in each of the corner point of the cube
8. One shall draw a three dimensional frame at any point of space. one shall further attempt to cut soap cake into 8 parts with a knife in three steps parallel to three axes of three dimensional frame.

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Text of Lesson
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1. Draw a Three dimensional frame at any point of the space.
2. Chase sequentially as per the steps tabulated hereunder in respect of first to eighth octant of the space standing cut in terms of a three dimensional frame.

SN.		
5		
6		
7		
8		
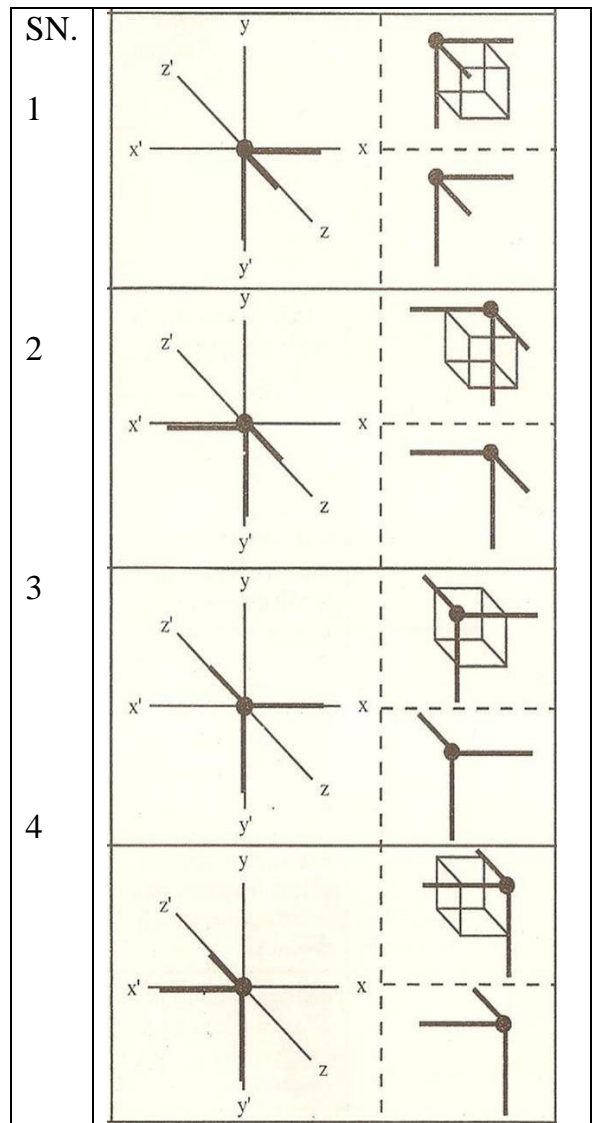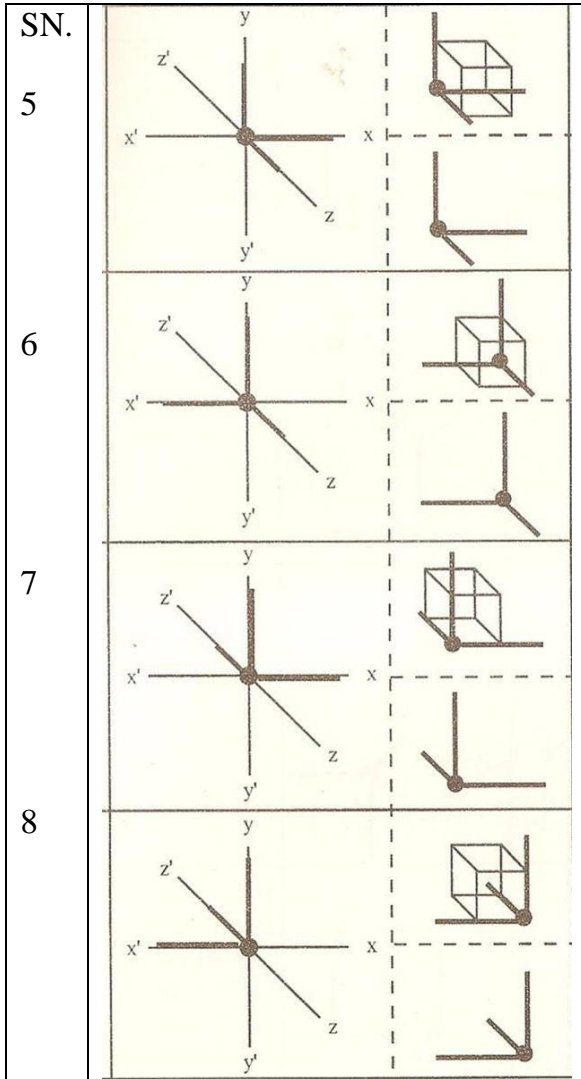
1. Let us again revisit the set up of the edges of the cube.
2. Each edge of the cube accepts a synthetic joint at its middle because of a pair of dimensions of pair of end points (corner points).
3. One may have a pause here and take note that 8 x 3 = 24 half dimensions of three dimensional frames of all the eight corner points together synthesize 12 edges with each edge being a synthetic set up of a pair of half dimensions, and that way making each edge a set up of a full dimension.

4. This set up of edges, four in number framing surface plate of the cube shall be bringing us face to face with the organization feature permitting split of the surface plate in four quarters.
5. One may further have a pause here and take note that each edge of the cube is the edge of a pair of surface plates.
6. This feature of the edge will further brings to focus that each point of the edge is the origin point of a two dimensional frame of half dimensions.
7. One may further have a pause here and take note that while each point of the edge is the origin of a two dimensional frame of half dimensions but the end points (corner points of the edge are the origin points of three dimensional frames of half dimensions).
8. One may further have a pause here and take note that as the cube would be of a diminishing volumme, the same ultimately would reach a phase and stage of collapse of eight corner points at center of the cube and in the process the whole range of in between points of the edges as well would have a simultaneous merger with the corner points and a collapse at the center.
9. It is this feature of the merger of in between points of the edges with the corner points of edges will also brings to focus as to how the origin of a two dimensional frame transits and transforms into origin of a three dimensional frame, and a step ahead into the origin of four dimensional frame and thereby would come to focus the feature of compactification of origins at middle point of line / center of square / origin of cube and so on.
10. It is the feature of compactification Phenomenon at the origin which is responsible for the split of cube into 8

sub cubes and parallel to it there being a cut of 3-space into 8 octants.

11. One shall chase this split of cube into 8 sub cubes and parallel to it the split of 3-space into 8 octants to properly comprehend and to appreciate the features of this organizational set up.

12. One way to chase it would be to cut the soap cake with knife in three steps to make it of eight parts.

13. The other way would be to have eight soap cakes of equal sizes and to set them into a bigger soap cakes.

14. This set up of bigger soap cake of eight equal sub cakes shall be having internal meeting point for the internal corners of eight soap cakes.

15. One may have a pause here and take note that the internal corner of the soap cake is parallel to the origin of a three dimensional frame.

16. That way, it can be observed as that internal corners of eight soap cakes, as origin points of three dimensional frames are enveloping the center of bigger soap cakes.

17. One may have a pause here and take note that this set up, as such is of the format and features of 4-space as such a release of 4-space at origin of cube / 3-space enveloped within solid boundary of eight components, to be designated as hyper cube 4.

Symbolic representation		Structural aspect
full dimensions frame	half-dimensions frame	
		Origin of 3-space • Origin
		Origin of 3-space 4-sapce

		Dimensional frame Swastik (卐)
		Dimensional frame 4-space
		Hypercube-4
		5-space as origin of 4-space

First version	2.	Second version
Third version	4.	Fourth version
Fifth version	6.	Sixth version
Seventh version	8.	Eighth version
Ninth version		

18. Let us have a fresh look at the set up of the cube again.

19. Cube is a set up of 27 components (8 corner points, 12 edges, 6 surfaces and 1 volumme) and a three dimensional frame of 4 components (3 axes and 1 origin).

20. Cube as a set up of 27 components, when is joined surface to surface with another cube, 9 of the components (of the in between surface namely 4 corner points, 4 edges and 1 surface area) gets super imposed and thereby the combined set up becomes of $27 + (27-9) = 27 + 18 = 45$ components.

21. Now if another cube is joined along with other surface to make the second row, then this start with cube of second row would be of $(27-9) = 18$ components. When second cube is added to the second row it shall be contributing only $18 - 6 = 12$ components and thereby the total components of the second row of pair of cubes would be $18 + 12 = 30$.

22. Thereby the total components of both rows of 2 cubes each shall be together making out a set up of $45 + 30 = 75$ components in all.

23. Now if the second storey is built upon this base storey of four cubes of a pair of paired cubes (4 cubes as a set up of a pair of rows as above of 75 components) then

    (i) The first row of the second storey shall be a set up of 18 components and the second cube of the said first row of second storey would be of 12 components and thereby the first row of second storey shall be contributing $18 + 12 = 30$ components.

    (ii) The first member of the second row of second storey would be a set up of 12 components. However second member of the second row of the second storey would be of $12 - 4 = 8$ components and thereby the second row of second storey would be set up of $12 + 8 = 20$ components in all.

    (iii) This way the total components of both the rows of second storey would be $30 + 20 = 50$ components.

24. With it the structural set up of both the stories of pair of rows each of pair of cubes would be $(45 + 30) + (30 + 20) = 125 = 5 \times 5 \times 5$.

25. Here it would be relevant to note that the set up of eight cubes (as above) is parallel to eight octants cut of the cube.

26. As such eight octants set up (2^3) leads to $125 = 5^3$ components set up.

27. It would be a blissful exercise to note that 3^3 sub cubes set up of the cube shall be leading to 7^3 components.

28. It would further be a blissful exercise to note that to workout n^3 sub cubes split of cube as a set up of $(2n + 1)^3$ structural set up.

29. Here it would be relevant to note that n-space accepts $(2n + 1)$ geometries range

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Exercises

1. Draw a three dimensional frame at any point of the space and to elaborate cut of the space in eight octants.

2. Draw a three dimensional frame with origin at center of the cube and elaborate split of the cube into 8 sub cubes.

3. Elaborate the features a three dimensional frame embedded in corner of the cube.

4. Elaborate the synthetic joint at middle of the edge of the cube.

5. Synthesize cube of signature 6 with cube of signature 5 and tabulate the components of this synthetic set up.

6. Synthesize signature 5 cube along x axes of signature 6 cube.

7. Synthesize signature 5 cube along x axes of cube and further also to synthesize 5 signature cube along y axis of the cube.

8. Tabulate the component of this synthetic set up of six signature geometry and a pair of five signature cube along x and y axes of the cube

9. Synthesize three five signature cubes, one along each of the three axes namely x axes, y axes and z axes. And to tabulate the components of this synthetic set up.

10. Synthesize two five signature cubes and one four signature cube with a six signature cube along its x axes and y axes surface and to compute the components of this synthetic set up.

11. Synthesize one five signature cube, two four signature cube and 1 three signature cube as second storey for the above synthetic set up of two five signature cubes and one four signature cube along x axes and y axes surface of first storey synthetic set up.

12. And to compute the components of emerging synthetic set up of both stories of eight cubes of above signature features.

13. Define and elaborate line versions of hyper cube 4.

Technical Terms

1. Eight octant
2. cut of 3-space
3. corner points
4. three dimensional frame of half dimensions.
5. edges
6. synthetic joint at its middle of the edge
7. half dimensions
8. synthetic set up of a pair of half dimensions
9. full dimension.
10. four quarters.
11. Split of surface plates

12. point of the edge as origin three dimensional frame

13. each point of edge is origin of a two dimensional frame

14. collapse of corner points

15. compactification of origins

16. compactification Phenomenon

17. internal corner point of sub cubes

18. release of 4-space at origin of 3-space

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LESSON – 05
NINE POINTS FIXATION OF A CUBE

Overview of lesson

1. Fixation of cube as enveloped 3-space domain as an integrated set up is attained in terms of eight corner points of the cube and ninth center of the cube.
2. The split of cube as eight cube cubes and re-synthesis of 8 sub cubes as cube brings into the set up of 8 centers of 8 sub cubes and 9th center of the main cube.
3. This internal cube with its eight corner points having placements at centers of 8 sub cubes of the main cube and the center of this cube super imposed upon the center of the main cube, makes this internal cube as the 9th sub cube, as much as that the volume of this 9th cube is equal to the volume of any of the sub cubes.
4. This feature of 3-space domain remaining enveloped within a geometric frame and retaining its integrity deserve to be comprehended well and the same to be appreciated fully for its complete imbibing for the thorough insight about this integrity feature of 3-space domain.
5. Simultaneously it would be blissful to have a fresh look at 9 points fixation of square.
6. Still further, it would be very blissful to glimpse fixation of hyper cube 4 as well in terms of eight solid boundary components and ninth solid dimensional order origin of 4-space / center of hyper cube 4.
7. Still further it would be blissful to glimpse fixation of transcendental (5-space) domain in terms of triple values (1, 3, 5) parallel to the transcendence process of transcendental (5-space)

domain firstly reaching the phase and stages of its solid dimensional order. And at next step the transcendence reach being at linear dimension of dimension order of transcendental (5-space) domains itself.

8. Still further it would be very blissful to glimpse the fixation of self referral (6-space) domain as in the role of self referral (6-space) dimensional order with 9-space in the role of origin fold of the four fold manifestation layer (6, 7, 8, 9).
9. The fixation of 7-space as dimensional order of 9-space as domain fold deserve to be comprehended well and the same to be appreciated fully for its complete imbibing and have thorough insight about it.
10. 9-space playing the role of origin of 8-space and thereby having fixation of 8-space is the transcendental (5-space) Phenomenon which deserve to be glimpsed by permitting the transcending mind to continuously remain in prolonged sitting of trans.
11. Brahman domain (9-space) going self referral (6-space) and of transcendental (5-space) state simultaneously of its own by unfolding itself as dimensional order of manifestation layer (9, 10, 11, 12) and manifesting transcendental (5-space) boundary of 12 components for the self referral (6-space) domain and Sun (6-space) multiplying and manifesting as 12 Suns is the Brahman Phenomenon which shall be urged to be glimpsed by permitting the transcending mind to continuously remain in prolonged sittings of trans in most gentle way in transcendental (5-space) environment.

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Text of Lesson
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1. One shall initiate oneself for fixation of dimensional domains with the set up of 9 numerals range (1, 2, 3, 4, 5, 6, 7, 8, 9) accepting (5) at its middle placement.

2. A step ahead, five steps long range of five numerals (1, 2, 3, 4, 5) accepts '3' at its middle placement.

3. A step further ahead, three numerals range (1, 2, 3) accepts '2' at its middle placement.

4. One may have a pause here and have a fresh look at the set up of quadruple artifices (2, 3, 5, 9).

5. It would be blissful to note that :
   (i) $2 + 1 = 3$
   (ii) $3 + 2 = 5$
   (iii) And $5 + 4 = 9$

6. The emerging triple values (1, 2, 4) permit re-organization as $(2^0, 2^1, 2^2)$

7. One may further have a pause here and take note that
   (i) The internal organization of number (1) for attainment of value 1 is of only one step viz. '1 = 1'.
   (ii) The internal organization of number '2' for value '2' is of a pair of steps viz. (a) 2 = 2 and (b) 2 + 1 + 1
   (iii) Internal organization arrangement of number 3 for value 3 is of quadruple steps (a) 3= 3 (b) 3= 1 + 2 (c) 3 = 2 + 1 (d) 3 = 1 + 1 + 1

8. One may have a pause here and revisit above features of triple numbers (1, 2, 3) accepting internal organization arrangement for values (1, 2 and 3) respectively of single, double and quadruple steps.

9. One may further have a pause here and take note that close interval is having quadruple formats: <u>first</u> an interval with both points intact <u>second</u> an interval with only left end point intact. <u>third</u> an interval with only right end point intact <u>fourth</u> an interval with both end points being absent.

10. One may further have a pause here and take note that 3-space is a linear order space as that 1-space plays the role of dimension for 3-space as domain fold.

11. As such cube is the set up of a three dimensional frame of three linear axes.

12. The three dimensional frame in its three steps with first step as a single axis, as second step (a pair of axes) and as third step, as all the three axes.

13. One may have a pause here and take note that the first axis as dimension / measure) shall be providing a format for linear sequential progression of ascending order parallel to the working rule of Ganita Sutra 1 'one more than before' which shall be leading from '1' to '1 + 1'.

14. One may have a pause here and take this as the first feature of '2' as a spatial order setup of 4-space whose Mathematics comes to be of features '2 as 1 and 1 as 2'.

15. The pair of axes as second feature of '2' shall be brining to focus as that linear axes yields 'zero area' and hence 'zero value'.

16. As such pair of linear axes shall be leading to pair of zeros (0, 0).

17. One may have a pause here and take note that pair of dimensions of zero order synthesized 2-space.

18. Hence the feature of pair of linear axes framing and structuring the surfaces.

19. Finally the three linear axes for split of two dimensional frame as a pair of linear axes and parallel to it the pair of artifices (1, 1) shall be synthesizing a synthetic value '3' and parallel to it there would be 3-space value.

20. This will help us comprehend, appreciate, imbibe and to have an insight as to how three dimensional frame with its split as a set of half dimensions leads to three sequential steps for synthetic structuring of 3-space bodies within a three dimensional frame namely (i) 2= 1 + 1 (ii) (0, 0) = 2, (iii) (1, 1) = 3.

21. With this the fixation of cube in terms of nine points finds its printout in the form of fixation of square in terms of 9 points.

22. 4 corner points of square, 4 middle points of square and one center of the square.

23. One may have a pause here and take note that the middle points of sides of square of the synthetic joints of neutralized state being the meeting point of half dimension of opposite orientations.

24. Here One may further have a pause here and take note that in each of the four corner points of the square are embedded two dimensional frames of half dimensions with orientation of the dimensions being towards and along the edges.

25. Further it also would be relevant to note that the middle point of four edges with their coordination with center makes a format for a two dimensional frame of full dimensions.

26. Still further it also would be relevant to note that the coordination of the corner points of the square with center of the square constitutes a format for a pair of diagonals, which together as well constitute a two dimensional frame.

27. One may further have a pause here and glimpse the transposition and placement of one of this pair of dimensional frames at another's place and to imbibe the features of transformations.

28. It would further be relevant to note that this transition and transformation

Phenomenon deserve to be imbibed fully by comprehending the features completely for thorough insight about it.

29. This way the 9 points fixation of square and 9 points fixation of cube deserve to be comprehended simultaneously to have insight about this fixation Phenomenon.

Exercises-1

1. Chase and learn review step no 1 and elaborate the statement:
   "Fixation of cube as enveloped 3-space domain as an integrated set up is attained in terms of eight corner points of the cube and ninth center of the cube."

2. Chase and learn review step no 2 and elaborate the statement:
   The split of cube as eight cube cubes and re-synthesis of 8 sub cubes as cube brings into the set up of 8 centers of 8 sub cubes and 9th center of the main cube.

3. Chase and learn review step no 3 and elaborate the statement:
   This internal cube with its eight corner points having placements at centers of 8 sub cubes of the main cube and the center of this cube super imposed upon the center of the main cube, makes this internal cube as the 9th sub cube, as much as that the volume of this 9th cube is equal to the volume of any of the sub cubes.

4. Chase and learn review step no 4 and elaborate the statement:
   This feature of 3-space domain remaining enveloped within a geometric frame and retaining its integrity deserve to be comprehended well and the same to be appreciated fully for its complete imbibing for the

thorough insight about this integrity feature of 3-space domain.

5. Chase and learn review step no 5 and elaborate the statement:

Simultaneously it would be blissful to have a fresh look at 9 points fixation of square.

6. Chase and learn review step no 6 and elaborate the statement:

Still further, it would be very blissful to glimpse fixation of hyper cube 4 as well in terms of eight solid boundary components and ninth solid dimensional order origin of 4-space / center of hyper cube 4.

7. Chase and learn review step no 7 and elaborate the statement:

Still further it would be blissful to glimpse fixation of transcendental (5-space) domain in terms of triple values (1, 3, 5) parallel to the transcendence process of transcendental (5-space) domain firstly reaching the phase and stages of its solid dimensional order. And at next step the transcendence reach being at linear dimension of dimension order of transcendental (5-space) domains itself.

8. Chase and learn review step no 8 and elaborate the statement:

Still further it would be very blissful to glimpse the fixation of self referral (6-space) domain as in the role of self referral (6-space) dimensional order with 9-space in the role of origin fold of the four fold manifestation layer (6, 7, 8, 9).

9. Chase and learn review step no 9 and elaborate the statement:

The fixation of 7-space as dimensional order of 9-space as domain fold deserve to be comprehended well and the same to be appreciated fully for its complete imbibing and have thorough insight about it.

10. Chase and learn review step no 10 and elaborate the statement:

9-space playing the role of origin of 8-space and thereby having fixation of 8-space is the transcendental (5-space) Phenomenon which deserve to be glimpsed by permitting the transcending mind to continuously remain in prolonged sitting of trans.

11. Chase and learn review step no 11 and elaborate the statement:

Brahman domain (9-space) going self referral (6-space) and of transcendental (5-space) state simultaneously of its own by unfolding itself as dimensional order of manifestation layer (9, 10, 11, 12) and manifesting transcendental (5-space) boundary of 12 components for the self referral (6-space) domain and Sun (6-space) multiplying and manifesting as 12 Suns is the Brahman Phenomenon which shall be urged to be glimpsed by permitting the transcending mind to continuously remain in prolonged sittings of trans in most gentle way in transcendental (5-space) environment.

12. Chase and learn the conceptual theme

Aim is to approach the set up of 'cube (�)', in its fixed stage.

Fixed states means, a state in which the structural set up of the body (here cube) remains integrated whole as wholesome unit.

13. Chase and learn the conceptual theme

Technical terms here are about the different components of the set up of the cube.

It would be a blissful exercise to tabulate these terms appearing in the text of the lesson.

Further, it also would be a blissful exercise to include these terms in

Dictionary being attempted by the readers.

The conceptual base and other features of these terms as well to be included in the explanatory notes in the Dictionary beneath these entries of the dictionary.

14. Chase and learn the following information

Overview of the information surfacing in the text of the lessons as well be drawn as an exercise of evaluation of the one's own comprehension of the lesson and appreciation of the emerging values of the lesson.

This overview is not only a summary of the lesson but it also is a projection of its inter-relationship with the previous lessons as well as about what is to follow the present lesson.

As such reaching at overview of the information of the lesson would be a complete index of understanding and imbibing of the values of the lesson and of insight of the virtues of the values learnt while being through the lesson.

15. Have a fresh visit of the set up of cube and comprehend it thoroughly it in the light of the set ups of square and hyper cube 4 and transcendence steps from domain to dimension and dimension to dimension of dimension:

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LESSON – 06
व्यष्टिसमष्टिः
VYASTHI SMASTHI
Part and Whole

Overview of lesson

1. Each Ganita Sutras and upsutras is complete in itself. As such all these 16 sutras and 13 upsutras deserve to be comprehended first of all independently as a Mathematics values and thereafter the specific value of given Sutra and Sutra is to be comprehended in context of and also along with the Mathematics values other Sutra (s).
2. Here in this lesson, Ganita Sutra 11 namely Vyasti Smasti Sutra is going to be taken up.
3. The text of Sutra in the sequential setting of the letters availed and formulation (s) reached at comes to be as under:

व्यष्टिसमिष्टिः ।

1	2	3	4	5	6	7	8	9	10
वृ	यु	अ	षृ	टृ	इ	सृ	अ	मृ	अ
11	12	13	14						
षृ	टृ	इ	:						

4. The chase of text of 14 letters organization of pair of basic formulations (i) व्यष्टि and (ii) समिष्टि: with simple meanings rendering acceptance by them as 'part' and 'whole' will bring to focus as to how the part and whole can be of identical format settings.
5. The transcendental (5-space) code values of this pair of formulations TCV (व्यष्टि) = 20 and TCV (समिष्टि:) = 25 with total summation value TCV (व्यष्टिसमिष्टि:) = 58 shall be further bringing us face to face the features of this Ganita Sutras.

6. The pure and applied values of this Sutra are of many folds. Of these, the feature that there can be hyper cube n within hyper cube n like pentagon within pentagon, hexagon within hexagon deserve to be comprehended well for its appreciation and imbibing to have full insight, in respect of it.

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Text of Lesson
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Conceptual term
1. Text of Ganita Sutra 11 as a pair of conceptual formulations (i) व्यष्टि Vyasti (ii) समिष्टि: Samasti.
2. Simple meanings rendering for
   (i) व्यष्टि Vyasti means 'part' come to be parallel to 'part' of the whole and
   (ii) समिष्टि: Smasti means 'whole' and for Smasti come to be parallel to 'whole in reference to the given part.

Statement
3. One shall chase the following statement in reference to the meanings and working rule of Ganita Sutra 11.
4. Part and Whole, Part as Whole, Part in reference to the whole and Whole in reference to the par, both part and whole accepting common format, are the different aspect of features of meanings and working rule of Ganita Sutra 1 and these aspects deserve to be chased on first principles approach of comparison of big and small lines, surface within surface, cube within cube and in general hyper cube n within hyper cube n.

Conceptual chase

5. The conceptual chase of the working rule of Ganita Sutra 11 can be had by having comparative understanding of (i)

big and small lines / intervals both being the set ups of infinite number of points. (ii) Big and small surfaces infinite number of (iii) Big and small solids / cubes, both being the setups of infinite number of points

Cube within Cube

6. The permissibility of the set up of a cube within a cube and in general the set up of hyper cube n within hyper cube n leads to the permissibility of interval, square and cube within cube and in general interval, square, cube and hyper cube n within hyper cube n

Concept of measuring rod

7. This feature leads to the concept of a measuring rod for hyper cube 3, and in general for hyper cube n as a synthetic set up of hyper cube 1, 2 and 3 as a measuring rod of 3-space and in general the setup of HYPER CUBE 1, 2, 3 ---n for hyper cube n.

Fixation of boundary

8. The fixation of boundary of hyper cube n is attained in terms of n x 2n coordinates for all the 2n boundary components in reference to a dimensional frame of n dimensions of n dimensional frame

Organization of $2n^2$: coordinates.

9. Fixation of boundary of components of hyper cube n is attainable in terms of $2n^2$ coordinates of n dimensions of n dimensional frame

10. This would sequentially lead to coordinates range (2, 8, 18, 32, 50, 72, ---) for hyper cubes 1, 2, 3, 4, 5, 6, ---).

11. The coordinates range (2, 8, 18, 32, 50, 72, ---) admits re-organization as (2, 2 +

6, 2 + 6 + 10, 2 + 6 + 10 + 14, 2 + 6 + 10 + 14 + 18, 2 + 6 + 10 + 14 + 18 + 22, --/

Summation values of four folds manifestation layers of hyper cube 1 to n

12. Summation value of four folds manifestation layer (-1, 0, 1, 2) of hyper cube 1 comes to be 2

13. Likewise the summation value of four folds manifestation layer of hyper cube 2 comes to be 6.

14. Further the summation value of four folds manifestation layer of hyper cube 3 comes to be '10'.

15. One may have a pause here and have a fresh look at the above features and to reach at following table
    Col 1= Serial number col 2 = hyper cube, col 3= boundary components, col 4 = Coordination, col 5 = manifestation layers

Col 1	Col 2	Col 3	Col 4	Col 5
1	HC 1	2	2	HC1
2	HC 2	4	8	HC1+2
3	HC 3	6	18	HC1+2 +3
4	HC 4	8	32	HC1+2 + 3+ 4
5	HC 5	10	50	HC1+2 +3+4 +5
6	HC 6	12	72	HC1+2 +3 + 4+ 5+ 6

Exercises

16. Workout fixation of boundary of (i) hyper cube 1 hyper cube 2.

17. Workout the summation values of four fold manifestation layers of hyper cube 1+ hyper cube 2+ hyper cube 3 workout values of coordinates of boundary components parallel to the summation values of four folf summations values.

18. Define and elloborate measuring rods of hyper cube 1, hyper cube 2, hyper cube

3, hyper cube 4, hyper cube 5, hyper cube 6.   *

Working rule of Vyasti Smasti rule
19. Elaborate the feature cube within cube.