

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

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NINTH VERSIONS OF HYPER CUBE 4

This day the course focus is upon 'Ninth versions of hyper cube 4'. It four folds aspects being taken up are as follows:

29. Let us revisit hyper cube 3 (cube)
30. 13th edge of spatial format
31. Ninth versions of hyper cube 4
32. Central focus : spatial order

The values being covered are to be taught as lessons numbers 29 to 32 to the students of 4-space Vedic Mathematics, Science & Technology.

LESSON-29

LET US REVISIT HYPER CUBE 3 (CUBE)

1. Within each corner point of cube is embedded a 3 dimensional frame of half dimensions of inward orientations towards centre of the cube.
2. The other 3 dimensional frames of half dimensions of outward orientation, in respect of all the eight corner points set ups, as such shall be leading to outward fixation for cube in terms of $8 \times 4 = 32$ structural components.

3. Further as that, the internal fixation of domain fold of the cube being in terms of a pair of 3 dimensional frames, of linear dimensions, as well as, of spatial dimensional respectively, the same shall be leading to 13 structural components, namely, (1-origin, 6 half linear dimensions, 6 half spatial dimensions).



LESSON-30

13TH EDGE OF SPATIAL FORMAT

1. 4-space domain manifests 13th edge of 12 edges cube toward a degree of freedom of motion.
2. 3-space body as a degree of freedom of motion toward 4th dimension.
3. As 4-space is a spatial order space, as such 2-space plays role of dimension of 4-space.
4. Accordingly 13th edge has a spatial format.
5. Moreover, this degree of freedom of motion for 3-space body is available towards each of the 4 dimension of 4-space.
6. With it, 4-space domain has complete swapping in terms of $13 \times 2 \times 4 = 104$ structural components.
7. One may have pause here and take note that NVF (four space) = 104.
8. It would be a blissful exercise to revisit the structural set up of 4-space domain permitting swapping in terms of 13th edged cube with spatial format for the 13th edge.
9. One shall tabulate all these features.
10. Further one shall specifically focus upon the set up of a 4-space domain as 9th version of hyper cube 4 parallel to 9 geometry of 4-space.



LESSON-31

NINTH VERSION OF HYPER CUBE 4

1. Ninth version of hyper cube 4 is 4-space domain free of all of its eight solid boundary components.
2. One may have a pause here and take note that 4-space domain has 9th version of hyper cube 4 is free of its all eight solid boundary components but is integrated because of its spatial and solid dimensional frame being simultaneously available here.
3. One may have a pause here and take note that 4-space has a transcendental origin.
4. Transcendental origin (5-space as origin) is of a solid order (3-space in the role of dimension of 5-space).
5. 4-space domain itself of a spatial dimensional order while its origin is of a solid dimensional order.
6. This way 4-space domain in the absence of its boundary, as well remain in integrated state because of simultaneous availability of spatial and solid order.
7. 4-space dimensional frame of 4 spatial dimensions and 4 space dimensional frame of 4 solid dimensions, together make a set up which integrates 4-space domain free of this boundary.
8. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting of trans and to glimpse and imbibe above format feature values organization.



LESSON-32

CENTRAL FOCUS : SPATIAL ORDER

1. Spatial order is the central focus of this phase of learning and teaching of creative the space.
2. Spatial order means 2-space in the role of dimension.
3. 2-space in the role of dimension takes us to 2-space domain playing the role of dimension.
4. 2-space domain is a 2-space contents lump manifesting as domain fold of hyper cube 2 as a 4 folds manifestation layer (0, 1, 2, 3) of summation value '6' which takes us to spatial boundary of 3-space of 6 components.
5. Spatial boundary of 3-space of 6 components, as such accepts re-organization as $6 = 2+4$ and take off from the spatial boundary manifests as a 4 dimensional frame of 4 spatial dimensions.
6. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting of tans and to glimpse and imbibe above features of manifestation of 4 dimensional spaces of four spatial dimensions.
7. One may have a pause here and take note that the organization $6 = 2+4$ and the value 2 square and 4 square, as a jump over 3 square is a feature, which also deserves to be comprehended well and fully imbibed.
8. This also brings face to face with the set up of a pair of grids $N \times N$ and $(N-2) \times (N-2)$ set ups.
9. In case of grids pair 4×4 , 2×2 we can glimpse as that 4×4 grids leads to 3×3 grid zones and this further leads to 2×2 grids with corner points of 2×2 grids getting superimposed upon the corner points of the outer 4×4 grids.

10. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting of trans and to glimpse and imbibe the above feature.

