# Vedic Mathematics, Science \& Technology Teacher Course 

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## FIXATION OF BOUNDARY

This day the course focus is upon 'Fixation of Boundary'. It four folds aspects being taken up are as follows:
81. Boundary of boundary.
82. Fixation of boundary within dimensional frame of domain fold.
83. Geometries of 6 -space.
84. Transcendental order space outside 6-space, as well as inside 6-space.

The values being covered are to be taught as lessons numbers 81 to 84 to the students of 6 -space Vedic Mathematics, Science \& Technology.

## LESSON-81

## BOUNDARY OF BOUNDARY

1. As boundary fold, in its own right is a domain fold, as such it shall be accepting boundary, which may be designated as a boundary of a boundary.
2. As (N-1) space plays the role of boundary of boundary of ( N ) space, as such ( $\mathrm{N}-2$ ) space shall be plays the role of boundary of the boundary.
3. The domain boundary ratio $\mathrm{A}^{\mathrm{n}}: 2 \mathrm{nB}^{\mathrm{n}-1}$, will hold for boundary of boundary as well for a value ( $\mathrm{N}-1$ ).
4. The sequential reach of steps taking from boundary to boundary will sequential take us from N space domain to $\mathrm{N}-1$ space as boundary; (N-1) space as domain shall be taking us (N-2) space as boundary and the process will continue till ( $\mathrm{N}=0$ ).
5. For facility of evaluation of comprehension of above features, here below is being drawn a tabulation for hyper cubes 1 to 6 .

| S. No | Domain fold | Sequential boundary to <br> boundary reach |  |
| :--- | :--- | :--- | :--- |
| 1 | 1-space domain | 0-space |  |
| 2 | 2-space domain | 1-space, 0-space |  |
| 3 | 3-space domain | 2-space, 1-space, 0-space |  |
| 4 | 4-space domain | 3-space, 2-space, 1-space, 0- <br> space |  |
| 5 | 5-space domain | 4-space, 3-space, 2-space, 1- <br> space, 0-space |  |
| 6 | 6-space domain | 5-space, 4-space, 3-space, 2- <br> space 1-space, 0-space |  |

6. Further it also would be blissful to glimpse sequential range of boundary components during the steps of reach 'boundary to boundary'.
7. 1-space domain accepts boundary of 2 components.
8. 2-space sequential accepts $(4,8)$ components.
9. 3-space sequential accepts $(6,24,48)$ components
10. 4 -space sequentially accepts ( $8,48,192,384$ ) components.
11. 5 -space sequentially accepts (10, 80, 480, 1920, 3840) components.
12. 6 -space sequentially accepts ( $12,120,960,480 \times 12,1920$ x $12,3840 \times 12$ ).
13. 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 feature and values.
14. It would be blissful to glimpse fixation of boundary component within dimensional frame of the domain fold.
15. It would be blissful to chase fixation of boundary, boundary of boundary and sequential step ahead of boundary of boundary of boundary ....
16. 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 feature and values.
17. It would be blissful to chase above features of sequential reach from boundary to boundary along the Sathapatya measuring rod format.
18. 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 feature and values.

## LESSON-82

## FIXATION OF BOUNDARY WITHIN DIMENSIONAL FRAME OF DOMAIN FOLD

1. 2 components of boundary of 1 -space get fixed in terms of $(1 \times 2)=2$ coordinates
2. 4 components of boundary of 2 -space get fixed in terms of $(2 \times 4)=8$ coordinates.
3. 6 components of boundary of 3 -space get fixed in terms of $(3 \times 6)=18$ coordinates.
4. 8 components of boundary of 4 -space get fixed in terms of $(8 \times 4)=32$ coordinates.
5. 10 components of boundary of 5 -space get fixed in terms of $(10 \times 5)=50$ coordinates.
6. 12 components of boundary of 6 -space get fixed in terms of $(12 \times 6)=72$ coordinates.
7. The above sequential fixation leads to values range $(2,8$, $18,32,50,72$ ).
8. This values range accepts re-organization as $[(2),(2+6)$, $(2+6+10),(2+6+10+14),(2+6+10+14+18)$, $(2+6+10+14+18+22)$.
9. One may have a pause here and take note that value 2 is the summation value of four folds $(-1,0,1,2)$ of hyper cube 1 .
10. One may have a pause here and take note that value 6 is the summation value of four folds $(0,1,2,3)$ of hyper cube 2 .
11. One may have a pause here and take note that value 10 is the summation value of four folds $(1,2,3,4)$ of hyper cube 3 .
12. One may have a pause here and take note that value 14 is the summation value of four folds $(2,3,4,5)$ of hyper cube 4.
13. One may have a pause here and take note that value 18 is the summation value of four folds $(3,4,5,6)$ of hyper cube 5 .
14. One may have a pause here and take note that value 22 is the summation value of four folds $(4,5,6,7)$ of hyper cube 6 .
15. One may have a pause here and take note that, these summation values will help us glimpse and imbibe the following organization features:
i. Value 2 is parallel to value of hyper cube 1
ii. Value $8=(2+6)$ is parallel to the values of hyper cubes 1 and hyper cube 2
iii. Value $18=(2+6+10)$ is parallel to the values of hyper cubes 1 , hyper cube 2 and hyper cube 3 .
iv. Value $32=(2+6+10+14)$ is parallel to the values of hyper cubes 1 , hyper cube 2 , hyper cube 3 and hyper cube 4.
v. Value $50=(2+6+10+14+18)$ is parallel to the values of hyper cubes 1 , hyper cube 2 , hyper cube 3 , hyper cube 4 and hyper cube 5 .
vi. Value $72=(2+6+10+14+18+22)$ is parallel to the values of hyper cubes 1 , hyper cube 2 , hyper cube 3 , hyper cube 4 , hyper cube 5 and hyper cube 6 .
16. 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 feature and values.

## LESSON-83 GEOMETRIES OF 6-SPACE

1. Richness of mathematics, sciences and technologies of 6space are their due to the range of 13 geometries of 6 space.
2. Parallel to it is the range of 13 versions of hyper cube 6 .
3. Each of these 13 versions of hyper cube 6 is a set up of distinct features and values.
4. These 13 types of hyper cube 6 formatted bodies of 6 space is of its distinct geometric format.
5. 13 geometric range and their corresponding representative bodies lead to distinct features of their respective discipline of mathematics, sciences and technologies.
6. These geometries range, in their sequential organization accepts association of numbers values (1, 2, 3, 4, 5, 6, 7, $8,9,10,11,12,13$ ) in that sequence and order being first, second, third and so on, the thirteen geometry.
7. As hyper cube 6 accepts transcendental boundary of 12 components, as such, parallel to the presence of the number of boundary components, they accepts association of values $(12,11,10,9,8,7,6,5,4,3,2,1$, 0 ), in that sequence and order.
8. The presence of boundary components, as such is taken as that, its presence, is its signature in the marks of its presence.
9. Accordingly parallel geometry gets designated as a range of geometries of signature $(12,11,10,9,8,7,6,5,4,3,2$, $1,0)$.
10. These versions of hyper cube 6 , also get organize as that 12 boundary components permit grouping as a pair of 6 components each.
11. This organization of boundary of 12 components, as a pair of group of half number of components leads to organization of feature of presence and absence of boundary components from both groups.
12. One feature of this organization comes to be that let one group be associated value (-) and other group be associated value $(+)$, and accordingly the range of 13 versions of hyper cube 6 and corresponding 13 geometries range of 6 -space get organize as a range of (-$6,-5,-4,-3,-2,-1,0,1,2,3,4,5,6)$ signatures.
13. This organization permits classification of 13 geometries as 7 non-negative geometries and 7 non positive geometries and zero signature geometry acquires membership of both non-positive and non-negative group of geometries.
14. The presence / absence of component of first part of boundary make a range of 6 geometries.
15. Likewise, second part of boundary as well, with presence and absence of boundary component makes a range of 6 geometries. The version of hyper cube 6 with zero number of components being present in both parts of the boundary, make a singular geometry.
16. These features of classification and organization of the range of geometries and parallel to it of versions of hyper cube 6 leads us to following 7x7 matrix format accommodating this organization.
$(6,6),(6,5),(6,4),(6,3),(6,2),(6,1),(6,0)$
$(5,6),(5,5),(5,4),(5,3),(5,2),(5,1),(5,0)$
$(4,6),(4,5),(4,4),(4,3),(4,2),(4,1),(4,0)$
$(3,6),(3,5),(3,4),(3,3),(3,2),(3,1),(3,0)$
$(2,6),(2,5),(2,4),(2,3),(2,2),(2,1),(2,0)$
$(1,6),(1,5),(1,4),(1,3),(1,2),(1,1),(1,0)$
$(0,6),(0,5),(0,4),(0,3),(0,2),(0,1),(0,0)$

## LESSON-84 <br> TRANSCENDENTAL ORDER SPACE OUTSIDE 6-SPACE, AS WELL AS INSIDE 6-SPACE

1. Hyper cube 6 is a four folds manifestation layer (4, 5, 6 , 7).
2. 7 -space plays the role of origin of 6 -space.
3. 7 -space is a transcendental order space.
4. 6 -space accepts transcendental boundary.
5. Take off at the boundary of 6 -space results into structuring of outer space as a transcendental space.
6. One shall have a pause here and to glimpse and imbibe the features of outer space, as well as of inner space being of transcendental order.
7. 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 feature and values.
8. It would be a blissful exercise to glimpse and to chase sequential transcendental boundary components and resultant structuring of the outer space.
9. One may have a pause here and take note that synthesis values range of synthesis of (1 to 12) numbers of
transcendental dimensions (5-space in the role of dimension).
10. For facility of evaluation of comprehension of synthesis values of synthesis of 0 to 12 numbers of transcendental dimension, tabulation thereof is being reach at as under:

| S. No | Number of Transcendental <br> Dimensions | Synthesis Values |
| :---: | :---: | :---: |
| 1 | 0 | 20 |
| 2 | 1 | 15 |
| 3 | 2 | 10 |
| 4 | 3 | 5 |
| 5 | 4 | 0 |
| 6 | 5 | -5 |
| 7 | 6 | -10 |
| 8 | 7 | -15 |
| 9 | 8 | -20 |
| 10 | 9 | -25 |
| 11 | 10 | -30 |
| 12 | 11 | -35 |
| 13 | 12 | -40 |

11. It also would be a blissful exercise to glimpse and imbibe of synthesis values of synthesis of $(-6$ to +6$)$ number of transcendental dimensions.
12. For facility of evaluation of comprehension of above values, tabulation their off is being reached at as under:

| S. No | Number of Transcendental <br> Dimensions | Synthesis Values |
| :---: | :---: | :---: |
| 1 | -6 | 50 |
| 2 | -5 | 45 |
| 3 | -4 | 40 |
| 4 | -3 | 35 |
| 5 | -2 | 30 |
| 6 | -1 | 25 |
| 7 | 0 | 20 |
| 8 | 1 | 15 |
| 9 | 2 | 10 |
| 10 | 3 | 05 |
| 11 | 4 | 00 |
| 12 | 5 | -5 |
| 13 | 6 | -10 |

