

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

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**TRANSCENDENCE RANGES AND DOMAIN SPLIT  
SPECTRUM**

This day the course focus is upon ‘transcendence ranges and domain split spectrum’. It four folds aspects being taken up are as follows:

29. Transcendence ranges synthesis values sequence (... , -35, -24, -13, -2, 9, 20, 31, 42, 53 ...).
30. 3-space domain split during transcendence during domain.
31. Revisit Cube
32. Revisit Interval, Square and cube.

The values being covered are to be taught as lessons numbers 29 to 32 to the students of 3-space Vedic Mathematics, Science & Technology.

**LESSON-29**

**TRANSCENDENCE RANGES SYNTHESIS VALUES  
SEQUENCE (... , -35, -24, -13, -2, 9, 20, 31, 42, 53 ...).**

1. Transcendence range is a five folds range.

2. A pair of transcendence ranges of same order synthesized by accepting synthesis glue equal to the value of the order of these transcendence ranges.
3. Illustratively the pair of transcendence ranges (1, 2, 3, 4, 5) and (1, 2, 3, 4, 5) of summation value 15 each, accept transcendence synthesis glue value (1) and grand synthesis value of this pair of transcendence ranges comes to be  $15 + 1 + 15 = 31$
4. In general, the transcendence ranges pair  $(n, n + 1, n + 2, n + 3, n + 4)$  accept synthesis value =  $11n + 20$ .
5.  $N = \dots, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, \dots$  leads to synthesis values sequence  $(\dots, -68, -57, -46, -35, -24, 13, -2, 9, 20, 31, 42, 53, 64, \dots)$
6. This value sequence  $(\dots, -68, -57, -46, -35, -24, 13, -2, 9, 20, 31, 42, 53, 64, \dots)$  is designated as a sequence of synthesis value of pair of transcendence ranges of the same order, in short, a sequence of synthesis values of a pair of transcendence ranges.
7. One may have a pause here and take note that synthesis value 31 is of linear order 3-Space, which manifests as hyper cube 3 / cube.
8. One may have a pause here and take note that cube is a set up of 31 structural components, namely (8 corner points, 12 edges, 6 surfaces, 1 domain, 3 axes and 1 origin).
9. One shall glimpse these features for proper appreciation and complete imbibing thereof.
10. The structural set up of cube, parallel to the synthesis of the pair of linear order, transcendence ranges, deserves to be properly comprehended for its through appreciation and for complete imbibing thereof.

11. A step ahead, the synthesis value 42 accepts re-organization as  $42 = 21 + 21 = (1 + 2 + 3 + 4 + 5 + 6) + (1 + 2 + 3 + 4 + 5 + 6)$
12. One may have a pause here and take note that the six steps long  $(1 + 2 + 3 + 4 + 5 + 6)$  amounts to transcendence from five steps long range  $(1 + 2 + 3 + 4 + 5 + 6)$  for reach at  $(1 + 2 + 3 + 4 + 5 + 6)$ .
13. This is a feature of spatial order 4-Space (2-Space in the role of dimension of 6-Space).
14. It would be relevant to take note that 6-Space has 4-space as dimension and 4-Space has 2-space as dimension.
15. These features deserve to be comprehended well for the proper appreciation and complete imbibing thereof.



## **LESSON-30**

### **3-SPACE DOMAIN SPLIT DURING TRANSCENDENCE**

1. 3-Space domain is a linear order domain (1-Space plays the role of dimension of 3-space).
2. Pair of linear dimensions have synthesis value  $(1, 1) = 3$ .
3. As such, split of 3-space domain leads to a pair of 1-space domains (parallel to a pair of linear dimensions) and 'dimension of dimension' of 1-space.
4. It is this feature as that during split of 3-Space domain, there also emerges a release of dimension of dimension, which deserves to be comprehended well.

5. One may have a pause here and take note that during first stage split of 3-Space domain, there emerges a spectrum of the pair of 1-space domains.
6. And also there emerges (-1) space domain as well.
7. At next stage of split, the pair of 1-space domains shall be leading to the spectrum of a pair of (1-space domains) in each case.
8. That way there would become available, as many as a spectrum of five entities of (-1-Space domains).
9. Simultaneously, also would be a release of pair of streams of dimensions of dimensions of 1-Space domains.
10. One may have a pause here and to properly comprehend and to imbibe the features of 3-space domains split spectrum at its first stage being of a pair of entities of 1-Space domain and at the second stage, there being a spectrum of as many as 5 entities of (-1) space domains.
11. One may further have a pause here and take note that the basic domain split feature is that domain splits into a pair of domains of dimensional order and also there happens to be a release of one stream of values of dimension of dimension of the domain itself.
12. This feature at first split stage leads to a spectrum of two entities and a release of one stream of dimension of dimension order
13. And at second step stage, there emerges a spectrum of five entities of previous stage domains and along with them, there also emerges a pair of streams of value of dimension of dimension of such previous stage domains.
14. Accordingly, at third stage there emerges spectrum of 12 domains of dimension of dimension order of previous stage domains and in addition thereto there also emerge

- five streams of order of dimension of dimension of those domains.
15. It would be blissful to take note that the sequential split spectrum comes to be of entities (1, 2, 5, 12, 29, 70, ---) and parallel to it also emerges a sequence of flow streams of values of dimension of dimension (0, 1, 2, 5, 12, 29, -).
  16. One may have a pause here and take note that initial start with stage of split spectrum it is taken to be of one domain entity and zero streams.
  17. The first split is of two entities and one flow stream.
  18. And at second stage the spectrum is of five entities and also there is a pair of flow streams.
  19. One shall comprehend and imbibe the values of domain split spectrum, in reference to any domain (n), which shall be sequentially leading to n domain to (n-2) domain to (n-4) domain and so on.
  20. This split phenomenon of domain is designated as transcendence within the domain.
  21. Transcendence within the domain takes from dimension to domain and then from dimension to dimension, and so on.
  22. In case of n being odd, there happens a reversal of orientation during transcendence from 1-Space to -9-Space,
  23. However in case of n being even the reversal takes place from 0-space to -2-Space.
  24. One may have a pause here and take note that with reversal of orientation, the transcendence avails a parabolic format.
  25. It is this format of transcendence within domain, which deserve to be comprehended well for its thorough

apprehension and for its complete imbibing to acquire proper insight and to attain appropriate enlightenment.



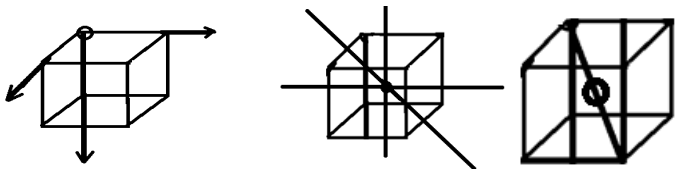
## LESSON – 31

### REVIST THE CUBE



1. Cube is a representative regular body of 3-space.
2. It is a regular body as here no axis is preferred over any other axis.
3. Cube has a geometric envelop stitched by 8 corner points, 12 edges and 6 surfaces making it a set up of  $8 + 12 + 6 = 26$  structured components.
4. Volume of the cube as one another structural components makes the total structural components being  $26 + 1 = 27$ .
5. Number value 27 accepts re-organization as  $27 = 3 \times 3 \times 3 = 3^3$ .
6. Corner points are of 'zero volume, zero area and zero length'.
7. Edges are of 'zero volume and zero area'.
8. Surface plates are of 'zero volume'.
9. Volume avails all the three axes.
10. Surface avails a pair of axes.

11. Edge avails a single axis.
12. Corner points are devoid of all the axes.
13. Each corner points are a meeting point three edges.
14. Each surface is enveloped by four edges.
15. Volume is enveloped by geometric envelope stitched by 8 corner points, 12 edges and 6 surfaces.
16. Cube accepts 4 internal diagonals.
17. These internal diagonals meet at a point designated as center of the cube.



18. In each corner point meet three edges, which also play as axis.
19. At center of the cube can be embedded a dimensional frame of three axes.
20. These three axes and center of the cube as origin of three dimensional frames make a set of 4 structural components.
21. These four structural components (three axes and fourth origin / center) together with other 27 structural components of the set up of the cube (8 corner points, 12 edges, 6 surfaces and 1 volume) together make out a set up of 31 structural components.
22. These 31 structural components together with 4 internal diagonals make out an extended set up of  $31 + 4 = 35$  structural components. ■

## LESSON-32

### REVISIT INTERVAL, SQUARE AND CUBE:

1. 3 dimensional frame structures space.
2. So structured space in terms of 3 dimensional frame of 3 axes lines is designated as a 3 space set up.
3. Cube is the structured body of this 3 space.
4. 3 axes sequentially structure interval, square and cube.
5. This sequential structuring by 3 axes is a sequential structuring of 3-space.
6. These 3 space structures become the structures within cube itself.
7. It leads to sequential reach of structured cube within a cube.
8. Single axis formats interval.
9. Pair of axis format square.
10. Cube is formatted by all the 3 axes.
11. Interval has length ( $A^1$ ) and a pair of end point ( $2A^0$ ).
12. These together make a set up  $(A^1 + 2A^0)^1$ .
13. Square has area ( $A^2$ ), 4 boundary lines ( $4A^1$ ) and 4 corner points ( $4A^0$ ).
14. These structural components of square make a set up  $(A^2 + 4A^1 + 4A^0) = (A^1 + 2A^0)^2$ .
15. Structural component of cube are volume ( $A^3$ ), 6 surface plates ( $6A^2$ ), 12 edges ( $12A^1$ ) and 8 corner points ( $8A^0$ ).
16. This structural set up leads to  $(A^3) + (6A^2) + (12A^1) + (8A^0) = (A^1 + 2A^0)^3$ .
17. These structural components set ups of interval, square and cube accept common value formula  $(A^1 + 2A^0)^n$ ,  $N = 1 + 2 + 3$ .



18. It would be interesting to note that cube structured within a cube will itself further accept another cube to be structured within it.
19. And this sequence may continue infinitely.
20. Likewise the square within a cube as well permit structuring of a square inside it.
21. And a step ahead there would be a reach for a structured square within the structured square within square within cube.
22. And this sequence as well may continue infinitely.
23. Likewise would be a situation in respect of intervals within a cube as well.
24. This will lead us to infinite sequence of intervals, squares and cubes within cube.

