

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

By Dr. S. K. Kapoor

DOMAIN SPLIT SPECTRUM OF 5 STEPS

This day the course focus is upon 'Domain split spectrum of 5 steps'. It four folds aspects being taken up are as follows:

81. Table of numbers of dimensions and sequential synthesis values difference for a pair of constitute dimensional order
82. Extending count range with middle placement of gaps
83. Synthesis of five dimensions of same dimensional order
84. Domain split spectrum of five steps long range

The values being covered are to be taught as lessons numbers 81 to 84 to the students of 4-space Vedic Mathematics, Science & Technology.

LESSON-81

**TABLE OF NUMBERS OF DIMENSIONS AND
SEQUENTIAL SYNTHESIS VALUES DIFFERENCE
FOR A PAIR OF CONSITITUTE DIMENSIONAL
ORDER**

1. Here below is reached at a table of numbers of dimensions of same order being synthesized as the first row, and in the second row is tabulated the difference

values of constitute dimensional order values for the same number of dimensions of synthesis.

Number of dimension	0	1	2	3	4	5	6
Difference value	0	-1	-1	0	2	5	9
Reach factor	- $\frac{3}{2}$	-1	- $\frac{1}{2}$	0	$\frac{1}{2}$	1	$\frac{3}{2}$

Number of dimension	7	8	9	10	11	12	13
Difference value	14	20	27	35	44	54	65
Reach factor	2	$\frac{5}{2}$	3	$\frac{7}{2}$	4	$\frac{9}{2}$	5

2. The above table leads us to the reach factors range as under:

Number of dimension	0	1	2	3	4	5	6
Difference value	0	-1	-1	0	2	5	9
Reach value	- $\frac{3}{2}$	-1	- $\frac{1}{2}$	0	$\frac{1}{2}$	1	$\frac{3}{2}$

Number of	7	8	9	10	11	12	13
-----------	---	---	---	----	----	----	----

dimension							
Difference value	14	20	27	35	44	54	65
Reach value	2	$5/2$	3	$7/2$	4	$9/2$	5

3. One may have a pause here and to take note that the numbers of dimensions sequence and parallel to it the corresponding reach factor sequence comes to be under:

Number of dimension	0	1	2	3	4	5	6
Difference value	0	-1	-1	0	2	5	9

Number of dimension	7	8	9	10	11	12	13
Difference value	14	20	27	35	44	54	65



LESSON-82

EXTENDING COUNT RANGE WITH MIDDLE PLACEMENT OF GAPS

4. The above reach factors reach is an extended range of the- counts (... -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5 ...).

5. The extended range comes to be $(-7/2, -3, -5/2, -2, -3/2, -1, -1/2, 0, 1/2, 1, 3/2, 2, 5/2, 3, 7/2, 4)$.
6. This reach as extended range of counts into next generic counts range, is a takeoff from the original counts to new counts.
7. This take off on the geometric format of dimensional synthesis values set ups with a common value difference between constitutive dimensional orders for whole range of numbers of dimensions of same order.
8. This brings us face to face with a set up of a countable infinite sequence of countable finite sequences of dimensional orders synthesis.
9. It further bring us face to face with the phenomenon of fulfilling the grids $n \times n$ for all values of n with availability of higher dimensional order at the centre of the grid zone with the potentiality for two fold transcendence at the centre of the grid.
10. The phenomenon of two fold transcendence at centre of every grid zone of grid $n \times n$ for all values of n is the phenomenon of attainment of continuity smoothness not only for the boundary fold surface but also for the in-between enveloped domained with in two faced surfaces of grid zone.
11. One may have a pause here and to take note that with this extension and transcendence steps Vedic system success speak for itself over and above the restricted approach of 'many fold'.



LESSON-83

SYNTHESIS OF FIVE DIMENSIONS OF SAME DIMENSIONAL ORDER

12. The sequence of synthesis values of five dimensions of same dimensional order is:
(... -15, -10, -5, 0, 5, 10, 15, 20 ...).
13. The difference value is of five counts between every pair of constitute dimensional order.
14. The extended range of values sequence, as has been fixed above, associate reach factor '1' for synthesis values of five dimensions.
15. With this pairing (5, 1) the bridging of gaps of giving counts for transition to next generic count stands attain.
16. It is this attainment which classifies synthesis in respect of zero to quadruple numbers of dimensions as one class and synthesis of five and more numbers of dimensions, as another class.
17. One shall sit comfortably and permit the transcending mind to continuously remain in prolonged sitting of trans and to glimpse and imbibe the above features values of classification.



LESSON-84

DOMAIN SPLIT SPECTRUM OF FIVE STEPS LONG RANGE

18. Five steps long split spectrum domains is of number of entities is (1, 2, 5, 12, 29) n domain sequentially take us to two entities of (n-2) domain.
19. A step head, the reach is at five entities of (n-4) domain.

20. A step, further ahead, reach at 12 entities of $(n-6)$ domain.
21. And a step further ahead, there would be reach at 29 entities of $(n-8)$ domain.
22. One may have a pause here and to take note that this way, five step long spectrum is of $(n, n-2, n-4, n-6, n-8)$ domain.
23. As individual letter text of Ganita Sutras and upsutras accepts transcendental code values '1 to 16', as such for $n = (1 \text{ to } 16)$ will sequentially leads us to domain split spectrum entities range of domains range.
 - (I) $N = 1$ leads to $(1, -1, -3, -5, -7)$ of summation value (-15) .
 - (II) $N = 2$ leads to $(2, 0, -2, -4, -6)$ of summation value -10 .
 - (III) Like that, range can be reach at $n = (3 \text{ to } 16)$.

