VM006-DocII009

Vedic Mathematics, Science & Technology
Teacher Course

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CENTRE OF GRID ZONES

This day the course focus is upon 'Centre of Grid zones'. It four folds aspects being taken up are as follows:

33. Centre of grid zones as corner points of another grid.
34. Polygons and internal diagonals.
35. Values pairs [$(N+2)^2$, N^2].
36. Sequential synthesis values of M numbers of dimensions of order (N & N+1).

The values being covered are to be taught as lessons numbers 33 to 36 to the students of 4-space Vedic Mathematics, Science & Technology.

LESSON-33

CENTRES OF GRID ZONES AS CORNER POINTS OF ANOTHER GRID

1. Grids lead to grid zones.
2. Centre of the grid zones coordinate another grid. The centre of grid zones of internal grid, gets superimposed upon the corners of the outer grid.
3. This feature makes a systems of reach from NxN grid to (N-2)x(N-2) as of the format of domain , dimension)

format of a spatial order, parallel to (domain, dimension) format of liner order (N, N-2).

4. One may have a pause here and 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.
5. It would be a blissful exercise to revisit the linear format (N, N-2) of (domain, dimension features, and spatial order format [N^2, $(N-2)^2$] of (domain, dimension feature).
6. Illustratively for N = 9, we shall be have a linear (domain, dimension format) of value pair (9, 7) while in case of spatial order (domain, dimension format) would be parallel to values parallel (81, 49).
7. One may have a pause here and take note that NVF (square) = 81 and NVF (axes) = 49.

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LESSON-34
POLYGONS AND INTERNAL DIAGONAL

1. Triangle is the polygon (surface enclosed within edges, 3) as the first polygon and it has no internal diagonal as each of the 3 vertex is connected with other pair of vertex without being through the enveloped surface.
2. Square is polygon of 4 sides accepting a pair of internal diagonals, both passing through the centre of the square.
3. Pentagon is a polygon of 5 sides and through each of 5 vertex, emanates 3 internal diagonals and all these internal diagonals intersects in such a way that they intersection points constitute internal pentagon concentric with the outer pentagon, and as such none of

the internal diagonal pass thought centre of the pentagon.

4. As internal diagonal of a pentagon constitute internal concentric pentagon. With none of the diagonal passing through the centre as such this is to continue add-infinitum.
5. It is this feature which deserves to be imbibed fully.
6. A step ahead, hexagon's internal diagonal as well constitute internal hexagon but only half of the internal diagonals pass through the centre of the hexagon.
7. This way, it would be a blissful exercise to glimpse and imbibe the structural set ups of polygons and their internal polygons and the feature of internal diagonals passing through the centre of the polygons.

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LESSON-35

VALUES PAIRS [$(N+2)^2$, N^2]

1. $(N+2)^2 = N^2+4N+4$.
2. It is parallel to the geometric set up of a square of side value (N+2).
3. The geometric set up of a square is a structural set up of 4 corner points, 4 sides and 1 area.
4. As such, geometric set up of $(N+2)^2$ is
   (i) Area N^2.
   (ii) Boundary lines for of value 4N and
   (iii) 4 corner points of value 4.
5. $(N+2)^2$ leads to area N^2.
6. One may have a pause here and take note that MxM grid accepts M points along each of rows, columns and diagonals.

7. This feature, as such, eqvients sides and diagonals.
8. With it, the rectangular axis and diagonal axis permit swapping of placements.
9. It amounts to collapse of grid at the centre.
10. It further amounts to superimposition of addition (+) and multiplication (x) operations.
11. With it, the point of a grid zone becomes a structured point such that
(i) 0+0 = 0x0 =(-0)x(-0), and further
(ii) 2+2 = 2x2 =(-2)x(-2).
12. I brings us face to face with that both 0 and 2 accepts common feature, as much as that, not only, addition (+) and multiplication (x) operation get superimposed in distinguishable, but also the opposite orientation as well gets superimposed in distinguishably.
13. One may have a pause here and take note that 0space plays the role of dimensions of 2-space, while 2-space plays the role of dimensions of 4-space.
14. As such the above feature of superimposition of addition and multiplication operation , as well as, in case of a pair of opposite orientation at spatial dimensional order, as well as at 0 dimension of dimension order and that being so the spatial order becomes of a unique values.
15. One may have a pause here and take note that if centre of a polygon is jointed with a pair of vertex of the polygon, then the first half diagonal will yield value (N+2), the second half diagonal as well would be yielding (N+2) value, and the reach from first vertex to the second vertex will be a travelling value 'N'.
16. One may have a pause here and take note that this will lead to synthesis value (N+2)+(N+2)-N = N+4.

17. A step ahead, the reach of 3 half diagonal from centre of polygon to 3 constitute vertex of polygon shall be leading us to value [(N+4)+(N+2)-2N = 6.
18. A step ahead the synthesis value of 4 half diagonal joining centre of the polygon with four constitute vertex of the polygon shall be leading to synthesis value [(6)+(N+2)-3N] = 8-2N.
19. Like that, we can proceed for sequential reach at the synthesis value, as per the following rule:

Step 1: Reach at value of synthesis of M half diagonal.

Step 2: Add value (N+2) to the above value.

Step 3: Subtracted value (M+1)x N form the above value reach at step 2.

Step 4: Value reach at step 3 is the value of synthesis of (M+1) half diagonal.

20. This way, one can sequentially reach at the synthesis values for every polygon.
21. One may have a pause here and take note that the above values for n = 1 would be the sequential synthesis values of linear dimensions of single double triple, quadruple and higher numbers of linear dimension.
22. For n = 2 it would be a reach for sequential synthesis of spatial dimensions.
23. A step ahead, for n = 3 would be a reach for synthesis values of solid dimensions.
24. And likewise, for n = (4, 5, 6, 7 …) there would be a reach for creative (4-space), transcendental (5-space), self-referral (6-space), unity state (7-space) and of higher dimensional orders set ups.

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LESSON-36

SEQUENTIAL SYNTHESIS VALUES OF M NUMBERS OF DIMENSIONS OF ORDER (N AND N+1)

1. The synthesis values of linear dimensions numbering (0, 1, 2, 3, 4, 5, 6 …) come to be (0, 1, 3, 6, 10, 15, 21, 28 …).
2. The synthesis values of spatial dimensions numbering (0, 1, 2, 3, 4, 5, 6 …) come to be (0, 2, 4, 6, 8, 10, 12, 14 …).
3. The difference values of synthesis values of respective number of linear and spatial dimensions come to be as under
   (0, -1, -1, 2, 5, 9, 14, 20, 27 …).
4. One may have a pause here and take note that the above difference values sequence is the differences values sequence of any pair of constitute dimensional order pair (N, N+1).
5. It would be a blissful exercise to tabulate dimensional synthesis values sequences for whole range of dimensional orders N (negative, positive, negative, positive and zero) for whole range of number of dimensions in each case that is for all values of M (negative, zero, positive).
6. It would be a very blissful exercise to reach at above table.
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 features.

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