

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

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NUMBERS VALUES 1 TO 100

This day the course focus is upon 'numbers values 1 to 100'. It four folds aspects being taken up are as follows:

- 89. Number values 1 to 100
- 90. Number values 1 to 1000
- 91. General
- 92. Space content and space body

The values being covered are to be taught as lessons numbers 89 to 92 to the students of 3-space Vedic Mathematics, Science & Technology.

LESSON-89

NUMBER VALUES 1 TO 100

- 1. Number values 1 to 100 are hundred in number.
- 2. These get classified as odds and evens, of cardinality of 50 each.
- 3. The difference between pair of consecutive odds and consecutive even is '2', which makes them of the format $(N, N+2)$, which is parallel to the format of (dimensions, domain).

4. Values sequence (2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98) are parallel to summation of four folds manifestation layers (N-2, N-1, N, N+1) of hyper cube N, N = 1 to 25.
5. One may have a pause here and take note that there are 25 primes uptill number value 100, namely (2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97).
6. Hyper cubes 1 to 25, respectively accepts (3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51) versions parallel to geometries ranges of 1-space to 25-space.
7. Hyper cubes 1 to 25, respectively accepts boundary components (2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50).
8. Hyper cubes 1 to 25 are respectively of dimensional orders (-1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23).
9. Double digit numbers 01 to 99, permits representation along 9x11 grids format as under:

01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63

64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99

10. The above grid 9x11 is organized as upper part and lower part in terms of the mirror line diagonal (10, 20, 30, 40, 50, 60, 70, 80, 90).
11. The upper part of this grid has a mirror line diagonal (11, 22, 33, 44) and in terms thereof the numbers of this part get organized as reflection pairs (01, 10), (02, 20), (03, 30), (12, 21), (04, 40), (13, 31), (05, 50), (14, 41), (23, 32), (06, 60), (15, 51), (24, 42), (07, 70), (16, 61), (25, 52), (34, 43), (08, 80), (17, 71), (26, 62), (35, 53), (09, 90), (18, 81), (27, 72), (36, 63), (45, 54).
12. These 25 reflection pairs together with 4 self reflecting artifices (11, 22, 33, 44) make the structural constitutions of the above upper part of the grids 9x11 of double digit numbers of ten place value systems.
13. Of the above 25 reflection pairs, nine of them namely (01, 10), (02, 20), (03, 30), (04, 40), (05, 50), (06, 60), (07, 70), (08, 80) and (09, 90) are having number value zero as the basic digit, while remaining 16 reflection pairs are not having a zero as a digit.
14. This way the above 29 constitutions of upper part get grouped as (16, 13) constitutions pair parallel to the organization of Ganita Sutra and upsutras being (16, 13) respectively.
15. One may further have a pause here and take note that $29 = 25 + 4 = 5^2 + 2^2$. And further as that 2-space as five

geometry ranges. Still further as that 2-space plays the role of dimension of 4-space while 5-space plays the role of origin of 4-space.

16. Still further as that, hyper cube 4 is four fold manifestation layers (2, 3, 4, 5).
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 format feature and values.
18. Values range 1 to 100 has ten steps long square values range (1, 4, 9, 16, 25, 36, 49, 64, 81, 100).
19. These has domain values lead to (-1, 2, 7, 14, 23, 34, 47, 62, 79, 98) as dimensions folds ranges.
20. Cubes range is of four steps up-till number value 100 namely (1, 8, 27, 64).
21. Up-till one thousand, cube range is ten steps long namely (1, 8, 27, 64, 125, 216, 343, 512, 729, 1000).
22. One may have a pause here and take note that square value range up-till one thousand is 33 steps long of values (1^2 , 2^2 , 3^2 , 4^2 , 5^2 , 6^2 , 7^2 , 8^2 , 9^2 , 10^2 , 11^2 , 12^2 , 13^2 , 14^2 , 15^2 , 16^2 , 17^2 , 18^2 , 19^2 , 20^2 , 21^2 , 22^2 , 23^2 , 24^2 , 25^2 , 26^2 , 27^2 , 28^2 , 29^2 , 30^2 , 31^2 , 32^2 , 33^2).
23. One may have a pause here and take note that values pairs (31, 33) is parallel to (dimension, domain) format.
24. Further as that, number value 31 is parallel to 31 structural components set up of cube (8 corner points, 12 edges, 6 surfaces, 1 volume, 3 axes, 1 origin).
25. Further as that number 31 is the synthesis value of a pair of linear transcendental ranges (1, 2, 3, 4, 5) and (1, 2, 3, 4, 5).
26. Further as that (33, 35) as well is of the format parallel to (dimension, domain) format.

27. Further as that, (35, -35) constitutes a reflection pair.
28. Still further as that, number value (-35) is the synthesis value of pair of negative transcendental transcendence ranges (-5, -4, -3, -2, -1) and (-5, -4, -3, -2, -1).
29. Still further as that $35 = 5 \times 7$ which is parallel to the dimensional value of dimensional frame of 7-space constituted by 7 transcendental dimensions.
30. Still further that $35 = 36 - 1 = 6^2 - 1^2$.
31. It would be a blissful to take note that $6^2 = (1+2+3+4+5+6+5+4+3+2+1)$ and this way the synthetic format of a straight line as a pair of straight lines of opposite orientations is making the calculus simple having transformation for cubes and squares being tamed as intervals.



LESSON-90

NUMBER VALUES 1 TO 1000

1. Number value $1000 = 999 + 1 = 33^2 + 1^2$.
2. Values range 1 to 33 has eleven prime namely (2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31).
3. Every number of the range 2 to 1000 is either prime or is having (2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31) being its factors.
4. Number value 2 takes care of all the even numbers.
5. Number value 3 takes care of multiplies of 3.
6. Number value 5 takes care of multiplies of 5.
7. Number value 7 takes care of multiplies of 7.
8. Likewise, number (11, 13, 17, 19, 23, 29, 31) takes care of theirs multiplies.

9. Proceeding like that we can reach at primes up till one thousand.
10. Triple digits numbers 001 to 999 gets classified as triples which have zero digit or not.
11. Triple ABC leads to 6 fold expressions as ABC, BCA, CAB, ACB, BAC and CBA.
12. This feature when availed brings us face to face with the organization format feature of triple digit numbers.
13. This feature brings us face to face with the organization of having fixation of a middle point for a giving pair of points.
14. Reach at the middle point is reach of the third step of which first would be of a having a fixation of first point, second step would be of fixation of second point and third step would be reach at the middle points.
15. This brings third point of middle placement.
16. Further as that, there would be a pair of orientation, as either of the given pair of points can be the first point.
17. This feature deserves to be comprehended well for its full appreciation.
18. This will brings us face to face with as to how the double digit set up will leads to triple digit set up by accommodating third digit at the middle placement of the pair of digit.
19. One may have pause here and take note that the middle placement , naturally is going to be of a fluctuating nature and as such, it continue would follow by the gap in between the pair of points becoming a single count, though of a different generic.
20. Points as of initial counts generic and the gaps between the points being of a different count generic, which is the feature which deserves to be comprehended well,

with this glimpsing and imbibing one may be acquire insight and would be attaining enlightenment as to the recognition of necessity by the Vedic system to simultaneously work with a pair of counts generic.

21. Ones this is available, we will reach at a system of simultaneously working with the pair of consecutive dimensional space at a time.
22. It will amounts to working with domain and boundary simultaneously
23. It would be a blissful to take note that NVF (mathematics) = NVF (square) + NVF (cube).
24. It would be a blissful to work with the format $y^2 = x^3$.
25. One shall sit comfortably and permit the transcending mind to glimpse and imbibe the format value features of following transcendental code value equations:
TCV (ANNAT) = TCV (SAHAstra) = 23 = NVF (END). Sahastra means 1000 and Annat means while never comes to an end.
26. 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-91

DIMENSIONAL DOMAIN

1. The term 'dimensional domain' avails a pair of terms:
 - (i) Dimensional
 - (ii) Domain

2. 'Dimension as dimension fold,' is 'domain' in the role of dimension, as such, 'domain' is the basic conceptually term.
3. Domain is a particular state of 'space contents'. That way, the concept, 'domain', take us a step ahead to the values of 'space content' in the state 'domain'.
4. Here, state of 'domain', is the feature of domain as 'domain fold' of dimensional body of the respective dimensional space.
5. As such, we leave 'space content', for the present has only institutively conceived term and upon it proceed to build defined conceptual terms like domain etc.



LESSON-92

SPACE CONTENT AND SPACE BODY

1. Space body/objects has object and entities as these can be view, are to be taken as the manifested forms of the space content.
2. This way, the manifested form of the space content, as object/entities/bodies are concerned, are to be taken as in that particular of space content.
3. This state of space content as space body, brings us face to face with its domain (a fold) of set up of the space body.
4. The domain fold, as such, in it this manifested form of the set up of a space body brings us face to face with the feature of the domain fold being enveloped within a boundary fold, which in the context of solids or the surfaces.

5. This domain boundary set up is within a dimensional frame, which that way, brings to focus, a dimension fold as one another fold of this set up of space bodies.
6. Domain fold enveloped within boundary fold and of expression within dimensional frame further confront us with it origin fold, in terms of which the dimension of the dimensional frame, as well as the domain itself remains coordinated and integrated.
7. One may have pause here and take note that the set up of the space body as a set up of quadruples forms namely domain fold, boundary fold, dimension fold, origin fold, further brings us face to face with different roles of space content and also the space content as well being of different feature and values related to the dimensionalized feature of the space.
8. 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.

