# Vedic Mathematics, Science \& Technology Teacher Course 

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## TRANSCENDENTAL BASE FOR OUTWARD AND INWARD 4-SPACE

This day the course focus is upon 'Transcendental base for outward and inward 4 -space'. It four folds aspects being taken up are as follows:
17. Transcendental base
18. Six place value system
19. $5 \times 7$ grid
20. Outer and inward four spaces

The values being covered are to be taught as lessons numbers 17 to 20 to the students of 3-space Vedic Mathematics, Science \& Technology.

## LESSON-17 <br> TRANSCENDENTAL BASE



[^0]1. The unsealing process of the compactified state of origins, sequentially takes from origin from $4^{\text {th }}$ fold to the $5^{\text {th }}$ fold as domain of the next origin which gets unsealed in the process, from the given origin.
2. This feature is designated as the feature of transcendence phenomenon.
3. The transcendence phenomenon extended four folds manifestation layer of hyper cube into 5 folds range.
4. The fifth fold is designated as base fold.
5. First four folds namely dimension fold, boundary fold, domain fold and origin fold, together with the fifth fold namely base fold makes a transcendence range of five folds.
6. It is this extension of four folds manifestation layer into five folds transcendence range, which deserves to be thoroughly chase, for its complete appreciation to have its complete imbibing to acquire proper insight and to attain appropriate enlightenment about this systems of Vedic Mathematics Science and Technology.
7. The four folds manifestation layer $(1,2,3,4)$ shall be extended into a five folds transcendence range ( $1,2,3,4$, 5).
8. Likewise the four folds manifestation layer $(2,3,4,5)$ shall be extended into a transcendence range ( $2,3,4,5$, 6).
9. In general, four folds manifestation layer $(\mathrm{N}, \mathrm{N}+1, \mathrm{~N}+2$, $\mathrm{N}+3$ ) shall be extending into five folds transcendence range ( $\mathrm{N}, \mathrm{N}+1, \mathrm{~N}+2, \mathrm{~N}+3, \mathrm{~N}+4$ ).
10. It would be blissful to take note that transcendence from four fold manifestation layer $(1,2,3,4)$ into transcendence range ( $1,2,3,4,5$ ), infact shall be a reach from the four fold manifestation layer $(1,2,3,4)$ to a
synthesized set up of pair of four folds manifestation layer $(1,2,3,4)$ and $(2,3,4,5)$ along the transcendence range format (1, 2, 3, 4, 5).
11. It would be a blissful exercise to sequentially chase this transcendence phenomenon starting with manifestation layer $(1,2,3,4)$ with reach at $(1,2,3,4,5)$, and from (2, $3,4,5)$ with a reach at $(2,3,4,5,6)$ and so on.
12. It is this feature of unsealed origin, which deserves to be comprehend well and its feature and values for properly appreciated for their complete imbibing.
13. It would also be relevant to take note that the compactified nature of origins is responsible for sequential unfolding of this compactifiction, because of which is the emergence of sequential transcendence ranges namely $(1,2,3,4,5),(2,3,4,5,6),(3,4,5,6,7)$ and so on.

## LESSON-18

## SIX PLACE VALUE SYSTEM



1. Spatial boundary set up leads to a six place value system.
2. Each of the 6 surface plate of solid domain is of a solid origin enveloped with in a spatial boundary of six components.
3. As such, the transcendence at the origin folds of six surface plates shall be leading to $(6 \times 6)=36$ spatial components formats
4. One may have a pause here and take note that each of these 36 spatial components shall be having solid domain as origin folds enveloped with 6 surface plates each and thereby this stage of transcendence there would emerge, as many as $6^{3}$ spatial structural components.
5. And the process will continue, sequentially lead to $6^{1}, 6^{2}$, ... spatial structural components.
6. It would be blissful to take note that this sequential emergence of values as $6^{1}, 6^{2}, \ldots$ is parallel to six place value format.
7. It is this feature of the spatial boundary of solid domain, which deserves to be comprehend well for its proper appreciation and for complete imbibing of its values to acquire proper insight and to attain appropriate enlightenment of six place value system
8. One may have a pause here and take note that, it is this feature which will further bring us face to face with parallel mathematics of artifices of number and of dimensional spaces.
9. A step ahead, the solid boundary of 8 component of hyper cube 4 shall be bringing us face to face with the parallel feature of eight place value system and of solid boundary of hyper cube 4, the representative regular body of 4-space.
10. A step ahead, creative boundary of ten component of hyper cube 5 , the representative regular body of 5 -space, shall be bringing us face to face with the parallel feature of ten place value system and of creative boundary of ten components hyper cube 5
11. The interrelationship of the setups of hyper cube 3 and hyper cube 5 will further help us to reach at interrelationship of six place value system with ten place system.
12. Infact, every place value system is fully interrelated with every other place value system, like every hyper cube is interrelated with every other hyper cube.
13. It is this interrelationship, which deserves to be comprehend well for complete appreciation and full imbibing

## LESSON-19

## 5X7 GRID

1. Vedic system work out double digit number of $n$ place value system along ( $\mathrm{N}-1$ ) $\mathrm{x}(\mathrm{N}+1)$ grid of ( $\mathrm{N}^{2}-1$ ) grid zones.
2. The basic ten place value system with its $99=(9 \times 11)$ double digit number is availed for the organization of the knowledge of the last (thirteen chapter) of Sri Mad Durga Sapt-Shati.
3. The six place value system leads to the format of $5 \times 7$ grid for coverage of 35 double digit number of 6 place value system along 35 grid zone, as under

| 01 | 02 | 03 | 04 | 05 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 10 | 11 | 12 | 13 | 14 |  |
| 15 | 20 | 21 | 22 | 23 |  |
| 24 | 25 | 30 | 31 | 32 |  |
| 33 | 34 | 35 | 40 | 41 |  |
| 42 | 43 | 44 | 45 | 50 |  |
| 51 | 52 | 53 | 54 | 55 | 100 |

4. It would be a blissful exercise to find equivalent values of above 35 double digits number of 6 place value systems into ten place value systems as ( $01,02,03,04,05$ $06,07,08,09,10,11,12,13,14,15,16,17,18,19,20$, $21,22,23,24,25,26,27,28,29,30,31,32,33,34,35)$.
5. It would be blissful to take note that the triple digit number value (100) of six place value system is having its equivalent value in ten place value system as (36).
6. It would be a blissful exercise to reach at equivalent values of ten place value system ( 00 to 99 ) into six place value system.
7. It would be blissful to take note that common algebraic format for place value system is $\left(\mathrm{A}+\mathrm{BX}^{1}+\mathrm{CX}^{2}+\ldots\right)$.

## THREE PLACE VALUE SYSTEM

1. Double digit number of 3 place value systems are ' 8 ' which are accommodated by eight grid zones of $2 \times 4$ grid as under:-

| 01 | 02 |  |
| :--- | :--- | :--- |
| 10 | 11 |  |
| 12 | 20 |  |
| 21 | 22 | 100 |

2. Double digit numbers of 5 place value systems are ' 24 ' which are accommodated by twenty four grid zones of $4 \times 6$ grid as under:-
$01 \quad 02 \quad 03 \quad 04$

| 10 | 11 | 12 | 13 |
| :--- | :--- | :--- | :--- |

$14 \quad 20 \quad 21 \quad 22$
$23 \quad 24 \quad 30 \quad 31$
$\begin{array}{llll}32 & 33 & 34 & 40\end{array}$
$\begin{array}{lllll}41 & 42 & 43 & 44 & 100\end{array}$
3. In general grid $(\mathrm{N}-1) \mathrm{x}(\mathrm{N}+1)=\mathrm{N}^{2}-1$ accommodates all the double digit numbers for all odd and even place values system (N).

## LESSON-20

## OUTER AND INWARD FOUR SPACES

OUTWARD FOUR SPACE


1. The space outside cube is a 4 -space.
2. The space within cube is 3 -space.
3. The corner points of the cube as origin points of three dimensional frame embedded in the corner points are of dual status of points of three space, as well as, the points of four space.
4. One may have a pause here and take note that this feature is there because of the compactified stage of origin.
5. Cube, as a three space body, within four space, plays the role of solid dimensional order of transcendental origin ( 5 -space as origin) of 4 -space.

## INNER FOUR SPACE

1. The creative origin of 3 -space leads to inner four space.
2. The spatial boundary of 3 -space as spatial order creates the outer four space.
3. The transcendence from 3 -space to 4 -space leads to inward expansion.
4. The transcendence outward from spatial boundary leads to outer expansion from 3 -space to 4 -space
5. It is this permissibility of simultaneous inward and outward expansion from 3 -space to 4 -space is the feature which deserves to be comprehended well.

[^0]:    Vedic Mathematics, Science \& Technology Teacher Course (www.vedicganita.org/vmcourses)

