

## ORGANIZATION FORMAT OF GANITA SUTRAS

### Step – 49: ‘1’ as ‘1/n’

1. Ganita Upsutra-1 helps approach ‘1 as 1/n’.
2. The application of working rule of Ganita Sutra-1 ‘one more than before’, as such shall be leading us to a sequence (1/n, 2/n, 3/n and 4/n, ----).
3. The mathematics of synthesis of dimensions, in the context shall be leading us to 1/n, 3/n, 6/n, 10/n, --- parallel to a sequence (1, 3, 6, 10, ---).
4. One may have a pause here and take note that  $1=1$   $3=1+2$ ,  $6=1+2+3$ ,  $10=1+2+3+4$ , -----.
5. It further would be relevant to note that
  - i.  $1/2 + 2/2 = 3/2$
  - ii.  $1/3 + 2/3 + 3/3 = 4/2$
  - iii.  $1/4 + 2/4 + 3/4 + 4/4 = 5/2$ ,
  - iv. -----
6. Further it would be relevant to note that  $1+2+3+---- + n = n(n+1) / 2$ .
7. As such  $1/n + 2/n + 3/n + ---- + n/n = (n+1) / 2$ .
8. One may have a pause here and take note that this feature of  $1/n + 2/n + 3/n + ---- + n/n = n+1 / 2$  is leading us to the middle value of artifices pair (n, n+1).
9. It is this feature of attaining middle value of a pair of consecutive artifices, which deserves to be comprehend well and to be imbibed fully as that in terms of this feature the mathematics of synthesis of dimensions can be appreciated well as to the aspect of the way the gap value of the pair of consecutive artifices / numbers and parallel to it the pair of consecutive dimensional orders and corresponding dimensional domains, can be bridged to attain continuity.

10. It would be relevant to note that, in the process the focus would shift to middle placement value and also upon '1/2' as a working unit.
11. This, as such shall be leading us to the mathematics of 'halves' artifices / dimensions.
12. Further here it would be relevant to note that the fixation of middle placement value for pair of artifices 1, 2, shall be leading us to the value  $3/2$ , the doubling of which shall be yielding (3).
13. This feature as such shall be bringing artifices 3 at the middle placement of the artifices pair (1, 2) orientation transiting into a pair of orientations (1, 2) and (2, 1).
14. This middle fixation as a triple (1, 3, 2) and the triple (2, 3, 4) when taken together would help us comprehend, appreciate and imbibe as to how the sequencing from artifices pair (1, 2) is attained for the triple (2, 3, 4), as has been the feature of the text of Ganita Sutra-7 for its syllables 2, 3 and 4.
15. Here in the context it also would be relevant to note that  $1/14 + 2/14 + 3/14 + \dots + 14/14 = 15/2$ .
16. This feature would help us comprehend, appreciate and to imbibe as to how the hyper circles 1 to 7 increase while hyper circle 8 onwards decrease and that this transition from increase to decrease happens at the middle of '7' and '8'.

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