ॐ । गायत्री छन्द । सरसवती मंत्र । महेश्वर सूत्र । गणित सूत्र

Om Gyatri Chand, Saraswati Mantra, Maheshwar Sutra, Ganita Sutras

Vedic Mathematics,
(Sunlight format Mathematics)
**Discipline of dimensional Synthesis
Mathematics Course**

13

Ten Place Value system and other place value systems

1. Ganita Sutra 2, amongst others, has one distinctive value of ten place value system.
2. TCV value of text of Ganita Sutra 2 (निखिलं नवतश्चरमं दशतः) comes to be 107.
3. Let us have a pause here and have a fresh look at the artifice '107'.
4. It would be blissful to note that it avails digit '7' for its unit place value in the artifice '107'.
5. One may have a pause here and take note that the '7' is the biggest prime numeral of ten place value system.
6. Let us have a fresh look at the artifice '10'.
7. Artifice 10 accept re-organization as $10 = 3 + 7$.
8. Here it would be relevant to note that artifices pair (3, 7) accept re-organization as (3, 3 + 1 + 3) which is parallel to the feature of 3-space accepting 7 geometries range and parallel to it there are 7 versions of cube / hyper cube 3.
9. Here it also would be relevant to note that for ten place value system, at the unit place the value of the format is $10^0 = 1$.
10. At next place value, the value comes to be 10^1.

11. One shall have a pause here and revisit the above features and to comprehend and appreciate them as features of ten place value system.

12. Further it also would be relevant to note that double digit numbers of ten place value system get organized along the format 9 x 11 / (10 − 01 + 10 + 01).

13. One shall further have a pause here and take note that artifices pair (9, 11) is parallel to the format of (n, n + 2) / dimension fold, domain fold.

14. With it the combined applications of Ganita Sutra 1, Ganita Upsutra 1 and Ganita Sutra 2 shall be leading to a working format for chase of whole range of place value systems.

15. Double digit organization for ten place value system comes to be as under along 9 x 11 grid format:

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	100

16. It would be a blissful exercise to chase following organization format of different place value system as under:

Table of nine Place value system

01	02	03	04	05	06	07	08	
10	11	12	13	14	15	16	17	
18	19	20	21	22	23	24	25	
27	28	29	30	31	32	33	34	
36	37	38	39	40	41	42	43	
45	46	47	48	49	50	51	52	
54	55	56	57	58	59	60	61	
63	64	65	66	67	68	69	70	
72	73	74	75	76	77	78	79	
81	82	83	84	85	86	87	88	100

Table of eight Place value system

01	02	03	04	05	06	07
10	11	12	13	14	15	16

17	18	19	20	21	22	23
26	27	28	29	30	31	32
35	36	37	38	39	40	41
44	45	46	47	48	49	50
53	54	55	56	57	58	59
62	63	64	65	66	67	68
71	72	73	74	75	76	77

Table of seven Place value system

01	02	03	04	05	06	
10	11	12	13	14	15	
16	20	21	22	23	24	
25	26	30	31	32	33	
34	35	36	40	41	42	
43	44	45	46	50	51	
52	53	54	55	56	60	
61	62	63	64	65	66	100

Table of six Place value system

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

Table of five Place value system

01	02	03	04	
10	11	12	13	
14	20	21	22	
23	24	30	31	
32	33	34	40	
41	42	43	44	100

Table of four Place value system

01	02	03	
10	11	12	
13	20	21	
22	23	30	
31	32	33	100

Table of three Place value system

01   02
10   11
12   20   100

Table of two Place value system

01
10
11   100

Table of one Place value system

Table of one place value system numbers from 1 to (1-1) (1+1)+1 i.e. from 1 to 1 $1=10$	On ten place value system number 1 =01 $1 = 01$
First place 1 unit place 0	First place 0 unit place 1

*

17-04-2015   Dr. Sant Kumar Kapoor