

Sri – Om  
**VEDIC MATHEMATICS AWARENESS YEAR**

E-Newsletter Issue no 10 dated 16-10-2014

*'Credit goes to Swami Bharti Krshna Tirtha Ji Maharaj to focus the attention of present generation about the values of Ganita Sutras (mental Mathematics Sutras)'*

*All are invited to join Awareness program*

*All are warmly invited to join the awareness program of Vedic Mathematics. All teachers, parents and students are invited to Learn and Teach Vedic Mathematics for proper intelligence growth at School.*

Dr. S. K. Kapoor  
Sh. Rakesh Bhatia  
Sh. Bhim Sein Khanna  
Sh. Deepak Girdhar  
- Organizers

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### Intelligence Growth Second phase Transition from 1 to 0 and back from 0 to 1

#### Recapitulation

1. The second phase of intelligence growth may be taken as centered around the comprehension of zero.
2. The first phase of intelligence growth, as such, may be taken as centered around comprehension of '1'.
3. For smooth intelligence growth, one shall very gently transit from comprehension of 1 to comprehension of 0.
4. For perfection of this transition, one shall equally, gently transit from the comprehension of zero to comprehension of one.
5. It is this two fold approach of transition from one to zero and from zero to one, which shall be helping enrich the intelligence growth process.
6. The intelligence, essentially is in the smooth transition formats.
7. The transition formats provide continuity.
8. It in a way shall be manifesting as features of relationships.
9. The gaps between two comprehension values would get bridged only in terms of the relationships of two values.

10. Pair of values together with their relationships would be making the intelligence range of the values.
11. It is this values range which shall be creating intelligence unit. These intelligence units as intelligence bits shall be in their collectivity creating intelligence field.
12. Therefore heavy responsibility lies upon the parents and teachers to very gently help young minds to enliven their intelligence field as their own creativity efforts of consciously bridging the gap of 1 and 0 and back from '0 to 1'.
13. It is going to be very big step towards the Phenomenon of intelligence growth for the young minds.
14. One shall ever remain conscious of this Phenomenon. It is in terms of it that take off takes place for the breakthrough from the discrete intelligence bits to continuous intelligence field zones.
15. The values of 0 and 1, may be worked out for comprehension of young minds and in terms of the same it may be demonstrated as to how differently these values behave.
16. Illustratively  $0 + 0 = 0 = 0 - 0 = 0 \times 0 = (-0) \times (-0)$ .
17. However  $1 + 1 = 2$ ,  $1 - 1 = 0$ ,  $1^1 = 1 = 1 / 1 = 1^{-1} = 1^n = 1^{-n}$ .
18. Further also that  $0^1 = 0 = 0^1 = 0^n = 0^{-n} = 0 - 0 = 0 + 0$ .

### Ganita Sutra-6

(आनुरूप्ये) शून्यमन्यत् ।

If one is in Ration the others is Zero

- i. Read the text of the Sutra.
- ii. Pronounce the text Loudly.
- iii. Sequentially tabulate the letters of the text.

1	2	3	4	5	6	7	8	9	10
आ	न्	उ	र्	ऊ	प्	य्	ए	श्	ऊ
11	12	13	14	15	16	17	18	19	
न्	य्	अ	म्	अ	न्	य्	अ	त्	

#### TECHNICAL TERMS

The Sutra text avails a pair of sub formulations, namely, (1) आनुरूप्ये । Anurupye and (2) 'शून्यमन्यत् / Sunyamanyat. Of these, the first sub formulation, namely आनुरूप्ये / Anurupye is just for focus attention as the organization format having reached the deep state of base of un manifest form of zero.

The formulation ('शून्यमन्यत् / Sunyamanyat) which literally means the unmanifest form of value '0' manifests value '0'. It as such shall be bringing us face to face with 0 as 'minus 0' as well as positive zero.

The equality  $(-0) = 0 = +0$  shall be bringing us face to face with our functional entities of infinitesimals.

The theory of equation and theory of fractions as of infinite decimal formats avail the format and features of values of zero focused by Ganita Sutras 5 and 6.

Both these sutras namely Sutra 5 and Sutra 6, deserve to be approached as complementary and supplementary of each other like  $-0$  and  $+0$  in reference to absolute 0.

\*

Dr. S. K. Kapoor,  
(Ved Ratan)

**16-10-2014**

## **NINE FEATURES OF VEDIC MATHS**

**Rakesh Bhatia**  
**Organizer**  
**16-10-2014**

1. The features in Vedic Mathematics, which absorb me most are being enlisted hereunder with an aim to share the same with everybody.
2. There features of Vedic Mathematics at many significant points are in contrast to the present day mathematical.

Let me enlist these points as:

### **I. Coherence –**

Perhaps the most striking feature of the Vedic system is its coherence. Instead of a hotchpotch of unrelated techniques the whole system is beautifully interrelated and unified: the general multiplication method, for example, is easily reversed to allow one-line divisions and the simple squaring method can be reversed to give one-line square roots. And these are all easily understood. This unifying quality is very satisfying, it makes mathematics easy and enjoyable and encourages innovation.

### **II. Flexibility-**

In modern teaching you usually have one way of doing a calculation. This is rigid and boring, and intelligent and creative students rebel against it. Once you allow variations you get all sorts of benefits. Children become more creative. The teacher is encouraging innovation and the children respond. In the Vedic system there are general methods, that always work, for example a method of multiplication that can be applied to any numbers. But the Vedic system has many special methods, when a calculation has some special characteristic that can be used to find the answer more easily. And it's great fun when you spot that method.

### **III. Satisfaction**

Having only one method of, say, multiplying is like a carpenter who uses a screwdriver for every job. The skilled craftsman selects the tool most appropriate for the job and gets it done quicker, better and with more **satisfaction**.

So there are special methods that apply in special cases and also general methods. You don't have to use these special methods but they are there if you want to.

#### IV. Right to left or from left to right

Calculations can often be carried out from **right to left or from left to right**. You can represent numbers in more than one way; we can work 2 or more figures at a time if we wish.

#### V. Flexibility

This **flexibility** adds to the fun and gives pupils the freedom to choose their own approach. This in turn leads to the development of creativity and intuition. The Vedic system does not insist on a purely analytic approach as many modern teaching methods do. This makes a big difference to the attitude which children have towards mathematics.

In this rapidly changing world adaptability and flexibility are absolutely essential for success. For the future we can expect more change and perhaps at a more rapid pace.

#### VI. Mental, improves memory –

The ease and simplicity of Vedic Mathematics means that calculations can be carried out mentally (though the methods can also be written down). There are many advantages in using a flexible, mental system.

Pupils can invent their own methods, they are not limited to the one 'correct' method. This leads to more creative, interested and intelligent pupils. It also leads to improved memory and greater mental agility.

#### VII. Understanding

Bear in mind also that mathematical objects are mental objects. In working directly with these objects as in mental maths you get closer to the objects and understand them and their properties and relationships much better. Of course there are times especially early on when physical activities are a great help to **understanding**.

#### VIII. Promotes creativity –

All these features of Vedic math encourage students to be creative in doing their math. Being naturally creative students like to devise their own methods of solution. The Vedic system seeks to cultivate intuition, having a conscious proof or explanation of a method beforehand is not essential in the Vedic methodology. This appeals to the artistic types who prefer not to use analytical ways of thinking.

#### IX. Appeals to everyone –

The Vedic system appears to be effective over all ability ranges: the able child loves the choice and freedom to experiment and the less able may prefer to stick to the general methods but loves the simple patterns they can use. Artistic types love the opportunity

## QUERIES ABOUT VEDIC MATHEMATICS

1. A good number of queries are following from different quarters about the way and in terms of which steps, Vedic Mathematics for its pure and applied values can be learnt.
2. Learning of Vedic Mathematics, as such may very well can be started with Ganita Sutras but for its all the pure and applied values, which shall be manifesting as sciences and technologies principles shall be requiring a start from the alphabet itself.
3. To feed these queries, from this issue of E-newspaper, this aspect as well is being touched. Hope it would help the interested persons urging to know Vedic Mathematics, Science & Technology.
4. This issue carries VMS & T step 1 by Dr. S. K. Kapoor.

Sh. Bhim Sein Khanna  
Sh. Deepak Girdhar  
- Organizers

*Vedic mathematics, Science & Technology  
Step 1*

*Dr. S. K. Kapoor (Ved Ratan)*

1. Vedic knowledge has reached us in Sanskrit language of Devnagri script.
2. As such first learning step of Vedic mathematics, Science & Technology in short (VMS & T), naturally is to be in the form of learning of Devnagri alphabet.
3. The present form of Devnagri alphabet, which deserve to be taken up as first step, may be taken up as under:

अ इ उ ऋ लृ ए ओ ऐ औ

क ख ग घ ङ

च छ ज झ ञ

ट ठ ड ढ ण

त थ द ध न

प फ ब भ म

य व र ल

श ष स ह

• ◡ ◣ ◤ ◥ ◦ ◧ ◨ ◩

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