## Sri – Om

# **VEDIC MATHEMATICS AWARENESS YEAR**

E-Newsletter Issue no 3 dated 4-10-2014

'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 - Organizers

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For more information visit at www.vedicganita.org			

## **Ganita Sutras**

#### **Original text with English translation**

1. एकाधिकेन पूर्वेण। By One More than One before 2. निखिलं नवतश्चरमं दशतः। All from 9 and the last from ten 3. उर्ध्वतिर्यग्भ्याम । Vertically and crosswise 4. परावर्त्य योजयेतु। Transpose and Apply 5. शून्यं साम्यसमुच्चये । Sunyam Samyasamuccaye 6. (आनुरूप्ये) शून्यमन्यत्। If one is in Ration the others is Zero 7. संकलव्यवकलनाभ्याम्। By addition and by subtraction 8. पूरणापूरणाभ्याम् । By the completion or noncompletion 9. चलनकलनाभ्याम। **Differentiation Calculus** 10. यावदूनम् । By the Deficiency 11. व्यष्टिसमिष्टिः। Specific and General 12. शेषाण्यडकेन चरमेण। The Remainder by the last digit 13. (सोपान्त्यद्वयमन्तम्) The ultimate and twice the penultimate 14. एकन्यूनेन पूर्वेण। By One less than the One Before 15. गुणितसमुच्चयः। The product of the Sum 16. गुणकसमुच्चयः । All the Multipliers

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## Ganita Upsutras

## Original text with English translation

1.	आनुरूप्येण।	
		Proportionately
2.	शिष्यते शेषसंइ	तः ।
		That remains is remainder
3.	आघमाघेनान्त्यग	मन्त्येन ।
		First with first Last with last
4.	केवलैः सप्तकं	गुण्यात् ।
		Only Seven as multiplicand
5.	वेष्टनम्।	
		Osculators
6.	यावदूनं तावदून	ाम् ।
		That twice This twice
7.	यावदूनं तावदून	नीकृत्य वर्ग च योजयेत्।
		That twice This twice Square and add
8.	अन्त्ययोर्दशकेऽ	जपि ।
		Ends to sum as ten
9.	अन्त्ययोरेव।	
		Ends to be in ratio
10.	समुच्चयगुणितः	: I
		Samuchya as product
11.	लोपनस्थपनाभ्य	गम् ।
		That missing to be established

12. विलोकनम्

By observation

13. गुणितसमुच्चयः समुच्चयगुणितः

Product samuchya Samuchya Product

## **INITIATIVE FROM GURGAON**

# 1. Sh. Nishant Ahlawat has conveyed desire and initiative from Gurgaon conveying that:

"I introduce myself as an individual with immense interest in field of Vedic Mathematics. The same stands further re energised through Vedic Mathematics awareness program, as has been instrumentalised by Dr. S.K.Kapoor.

Being based in Gurgaon, Haryana, I am keen to introduce Vedic Mathematics awareness program in my district in association with various educational institutions. Being influenced by your dedicated efforts I look forward for your blessing and able guidance to take further this cause.

Looking forward to hear from you.

Best Regards Nishant Ahlawat <nishant@technolegals.com>"

- 2. We welcome this initiative from Gurgaon let a full team of organizers may be formed. We shall be providing all necessary supportive information and knowledge for providing proper Vedic Mathematics awareness for Teachers, Parents and Children of Gurgaon.
- 3. It would be desirable that the list of the primary middle and higher secondary school of City Gurgaon may be prepared.
- 4. List of the Principles and Mathematics Teachers with their Telephone contact numbers and e-mail correspondence addresses as well be tabulated to facilitate communications.
- 5. We can plan a meeting at Rohtak or even at Gurgaon to decide about further steps. In the meanwhile some information about Vedic Mathematics may be collected from Google search engine and Wikipedia etc.
- 6. As initial steps, one can acquaint oneself with the text of Ganita Sutras '16' and Ganita Upsutra '13', which has been reproduced in this issue as well together with simple English rendering for these Sutras and Upsutras.

- 7. In the subsequent issues, we shall also be including illustrative applications of the Sutras in sequential steps to demonstrate about the values of the Sutras.
- 8. In the words of Swami Bharti Krshna Tirtha Ji Maharaj, these Sutras are having very wide range of applications over complete range of length and breadth of Mathematics.
- 9. Once again the Gurgaon initiative is delightfully appreciated.

Organizer

### About Values of Ganita Sutras

- i. "The Sutras (aphorisms) apply to and cover each and every part of each and every chapter of each and every branch of mathematics (including arithmetic, algebra, geometry-plane and solid, trigonometry-plane and spherical, conesgeometrical and analytical, astronomy, calculusdifferential and integral etc.) In fact, there is no part of mathematics, pure or apply, which is beyond their jurisdiction;
- ii. The Sutras are easy to understand, easy to apply and easy to remember; and the whole work can be truthfully summarized in word 'mental'!
- iii. Even as regards complex problems involving a good number of mathematical operations (consecutively or even simultaneously to be performed), the time taken by the Vedic method will be a third, a fourth, a tenth, or even a much smaller fraction of the time required according to modern Western methods;
- And in some very important and striking cases, iv. sums requiring 30, 50, 100 or even more numerous and cumbersome 'steps' of working (according to the current western methods) can be answered in a single and simple step of work by the Vedic method! And children of even 10 or 12 Years of age merely look at the sums written on the blackboard (on the platform) and immediately shout out and dictate the answers from the body of the convocation hall (or other venue of the demonstration). And this is because, as a matter of each digit automatically vields fact. its predecessor and its successor! And the children have merely to go on tossing off (or reeling off) the digits one after another (forwards or

backwards) by mere mental arithmetic (without needing pen or pencil, paper or slate etc.)!

- v. On seeing this kind of work actually being performed by children, the doctors, the professors and other 'big-guns' of mathematics are wonder struck and exclaim: 'Is this mathematics or magic?' And we invariably answer and say: 'It is both. It is magic until you understand it; and it is mathematics thereafter'; and then we proceed to substantiate and prove the correctness of this reply of ours!
- vi. As regards the time required by the students for mastering the whole course of Vedic mathematics as applied to all its branches, we need merely state from our actual experience that 8 months (or 12 months) at an average rate of 2 or 3 hours per day should suffice for completing the whole course of mathematical studies on these vedic lines instead of 15 or 20 years required according to the existing systems of the Indian and also of foreign universities."

### Swami Bharti Krshna TirthaJi Maharaj