Why I dislike Vedic maths [1]

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1. **Vedic mathematics (VM) is neither "vedic" nor "mathematics"**

   VM is not "vedic" :: According to Wikipedia (and a whole lot of other sources) "Vedic mathematics is a system of mathematics consisting of a list of 16 basic sutras, or aphorisms. They were presented by a Hindu scholar and mathematician, Bharati Krishna Tirthaji Maharaja, during the early part of the 20th century. Tirthaji claimed that he found the sutras after years of studying the Vedas, a set of sacred ancient Hindu texts [1]. This, by itself, could be called a commendable achievement, but the choice of the name "vedic mathematics" is misleading and questionable. VM may, at best, be seen as the view of one individual on a limited subset of mathematics.

   Vedas do not contain any of the "Vedic mathematics" (VM) sutras. The VM sutras themselves do not make any reference to the vedas either. Considering the lack of references to the sutras (and vice versa) , coupled with the fact that the language style does not seem Vedic, some propose that the sutras were simply composed by Tirthaji himself. Save one scholar (Thirthaji), no other Hindu guru or vedic master has made any contribution to VM.

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[1] Citation details : http://drpartha.org.in/publications/vedicmaths1.pdf

It should be noted that there are four vedas : Rig, Yajur, Saama, Atharva. There is no mention in VM as to from which veda has VM been derived. Thirthaji himself never claimed that "vedic mathematics" was extracted from any Veda. The vedas were followed by the vedanta which gave supplementary knowledge beyond the vedas. VM finds no mention in the vedantas either (and vice versa). The vedas have been around for several thousands of years. Strangely, in all these years, no one, save Tirthaji, seems to have noticed VM hidden in any of these vedas.

The controversy about the Vedicity of the mathematics is further confused by the double meaning of veda. Since veda can be translated to mean knowledge, it is also possible that Vedic mathematics simply refers to the fact that the sutras are supposed to present all knowledge of mathematics (which is a highly questionable claim).

Surprisingly, no other mathematical work of Hindu/Indian origin makes reference to VM (and vice versa). For example, astronomy (not to be confused with astrology), which flourished in India, does not use any of the sutras of VM. Mathematicians of ancient India do not seem to have noticed any VM in any of the Hindu texts (particularly the vedas), neither do they seem to have used any of the sutras of VM.

The VM mystery is further confounded by the incredible story of how the original work of Thirthaji "vanished". Thirthaji claims to have written sixteen volumes expounding the Vedic system but these were unaccountably lost and when the loss was confirmed in his final years he wrote a single book.

The claim that, so many years worth of effort could have been inexplicably "lost" without a trace, makes this whole story appear like yarn. In traditional mathematics, all results may be always derived from first principles. VM does not seem to have this important quality, making it a questionable science. Neither Thirthaji, nor the followers of VM have been able to reconstruct the mysteriously lost sixteen books, due to this lacuna in VM.

Add to this, the fact that 16 books were "lost" and all that could be retrieved was 16 sutras, compiled into one single book.

VM is not mathematics :: Mathematics is much more than arithmetic. The sutras of VM resolve only some problems in arithmetic, and that too in integer arithmetic. There is almost no scope for abstraction, which is the most important property of mathematics.

The so called vedic mathematics does not comprise any separate branch of mathematics or herald some new form of mathematics. It is nothing but

some clever tricks to solve elementary arithmetic and algebra and is similar to the speed mathematics, popularised by Trachtenberg and many other such authors.

2. **Mathematics is based on proofs , theorems and axioms.**

   Mathematics is never a subject of interpretation by individuals. It is based on proofs using theorems and axioms. By extension, the results can be used in proofs of other theorems. VM has not demonstrated any such quality.

3. **Mathematics does not depend on rote learning**

   Rote learning has no place in mathematics. Almost all mathematical concepts and results can be derived from some basic axioms and theorems (although with some effort). VM depends almost exclusively on learning the sutras by heart. The sutras themselves cannot be derived from one another.

4. **Mathematics needs cogent terminology.**

   Well defined terminology, unambiguous notations, and clear definitions, form an important basis of any science, specifically mathematics. VM lacks this important quality.

5. **Remembering some obscure sutras, and applying them blindly is much more perilous and painful than following rules of traditional mathematics.**

   The claim that VM is easy maths, is a myth. The claim that VM makes mathematics easy, is rendered null and void because of the effort needed to remember, interpret and apply obscure sutras. Applying such adhoc and disjoint sutras will only put the students in a black hole, and isolate them from the rest of mathematics.

   According to VM, all of mathematics is based on sixteen Sutras, or word-formulae.[2]. This is a tall and unjustified claim.

6. **Mathematics is a growing organism.**

   VM is dead and fossilised since long. It has not grown beyond the 16 sutras, nor has it enveloped other branches of mathematics and other sciences.

   Vedas and vedic society had an incredibly powerful mechanism of spreading vedic knowledge. In the gurukul sytem of education, every guru cultivated

his own bunch of students/disciples to whom he transferred all the knowledge he had acquired. For some mysterious reason, Thirthaji does not seem to have cultivated any disciples for vedic mathematics, to carry forward his legacy.

Perhaps, the only benefit of keeping the concept of Vedic mathematics alive, is that a few institutions and individuals have found a way of making money by promoting this defective idea commercially, and luring youngsters and their parents with cleverly worded promises.

7. **Mathematics does not depend on emotions, sentiments, or beliefs.**

Mathematics is not linked to any particular religion or belief. Opposition or dissent to VM is considered as blasphemy, and condemned. Dissent or criticism of VM, is considered (by VM fanatics) as insulting the Vedas and Hinduism.

Critics of VM do not necessarily underestimate the contributions of India or Indians to mathematics. Neither are they any less patriotic than the advocates of VM. Science makes progress only because of introspection and criticism. The hostility exhibited by devotees of VM is the major reason why no significant progress in VM has been achieved after its founder, the much revered Thirthaji.

Quite often, the claims made by advocates of VM is hype, based mainly on emotional impulses. It is probably for this reason that VM finds no support in international mathematical communities like IMU, AMS etc.

Nail the coffin forever

Now, read what a famous Professor of mathematics Prof. S.G Dani, TIFR, Mumbai, India, has to say:

- Myth and reality : on 'Vedic Mathematics' ; an updated version of a two-part article in Frontline (Vol 10, No. 21, October 22, 1993, pp. 90-92 and Vol 10, No. 22, November 5, 1993, pp. 91-93).

- 'Vedic Maths' : facts and myths, published in One India One People, Vol 4/6, January 2001, pp. 20-21.

- "Vedic Mathematics" : a dubious pursuit, published in Newsletter of the Ramanujan Mathematical Society.

- Vedic Maths: myths and reality ; based on a presentation made at the second national conference on "Technology & Innovations in Mathematics Education" (TIME), from December 1-4, 2007.

- Vedic Mathematics in Perspective, ; text version of a talk given at the XXXI Session of the Indian Social Science Congress, at SNDT University, Mumbai, on 29 December 2007.

Thus, vedic maths is finally in the coffin and the coffin has been nailed forever.

Concluding remarks

I am not the only one who dislikes reckless promotion of VM. A senior scientist from the Tata Institute of Fundamental Research, India [4], and a host of other respectable intellectuals, further confirmed my opinion on VM [3] These reputed scholars have put up a strongly-worded petition against imposing vedic mathematics in Indian schools [3]. They rightly consider this policy as a **perpetration of a fraud on our children**. And there is always a bunch of greedy fraudsters who will eagerly exploit this opportunity to make a quick buck.

Their concluding sentence is prophetical :: *We re-iterate our firm conviction that all teaching and pedagogy, not just the teaching of mathematics, must be founded on rational, scientific and secular principles.*

May commonsense and wisdom prevail. Amen.

References

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[2] Wikipedia, Vedic Mathematics (book),
http://en.wikipedia.org/wiki/Bharati_Krishna_Tirtha's_Vedic_mathematics

[3] South Asia Citizens Web,
Neither Vedic Nor Mathematics
http://www.sacw.net/DC/CommunalismCollection/ArticlesArchive/NoVedic.html

[4] Tata Institute of Fundamental Research ,
http://www.tifr.res.in/

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