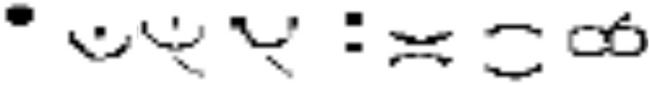
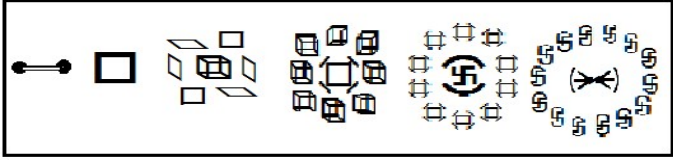


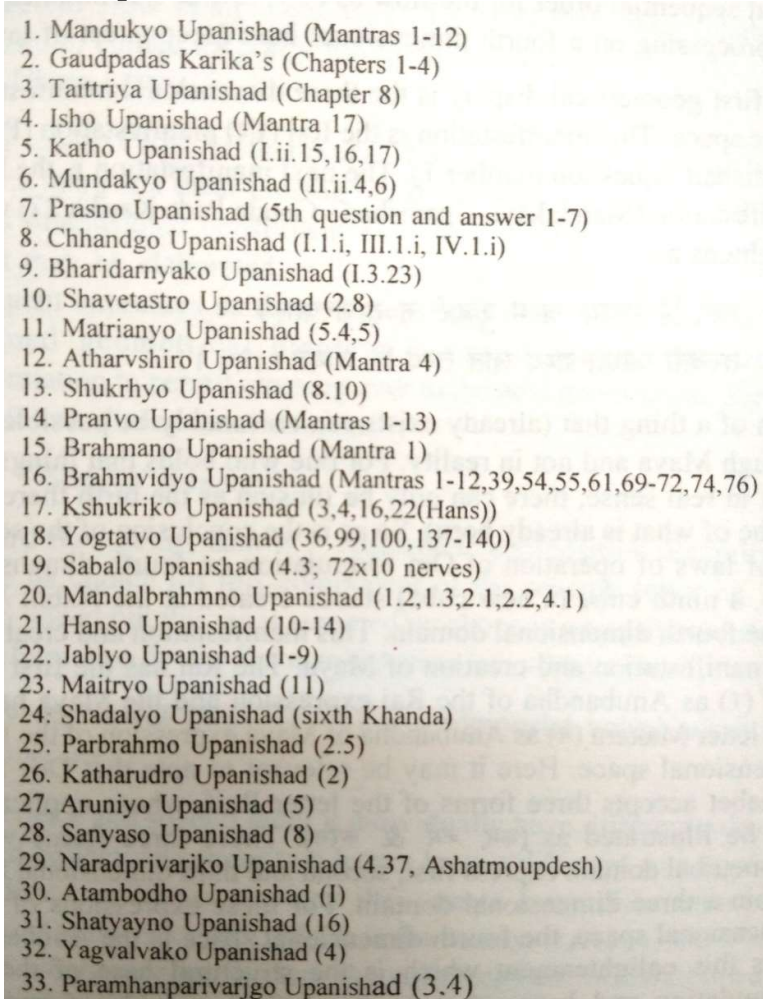
Organization format and features of Vedic Ganita sutras mathematics

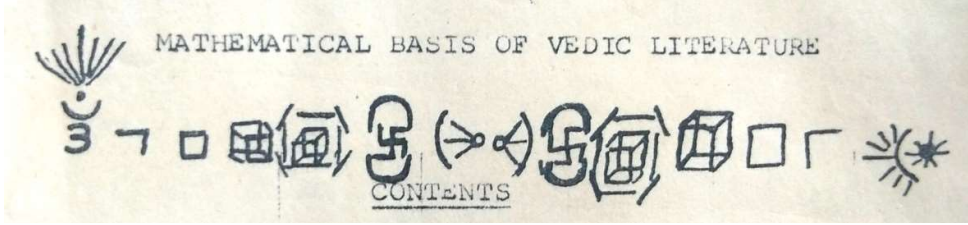
References Table

S. No	Reference point
1	<p>Vedic Ganita sutras (VGs) text⁽¹⁾ The text as is reproduced and printed in book: Vedic Mathematics by Swami Bharti Krishna Tritya Ji Maharaj, published by Banaras Hindu University, is as under:</p> <p>1.1 Ganita Sutra (1) एकाधिकेन पूर्वेण। (2) निखिलं नवतश्चरमं दशतः। (3) ऊर्ध्वतिर्यग्भ्याम् । (4) परावर्त्य योजयेत्। (5) शून्यं साम्यसमुच्चये । (6) (आनुरूप्ये) शून्यमन्यत्। (7) संकलनव्यवकलनाभ्याम्। (8) पूरणापूरणाभ्याम्। (9) चलनकलनाभ्याम्। (10) यावदूनम्। (11) व्यष्टिसमष्टिः। (12) शेषाण्यङ्केन चरमेण। (13) सोपान्त्यद्वयमन्तम् । (14) एकन्यूनेन पूर्वेण। (15) गुणितसमुच्चयः। (16) गुणकसमुच्चयः। This text is a composition of 283 letters.</p> <p>1.2 Ganita Upsutra (1) आनुरूप्येण। (2) शिष्यते शेषसंज्ञः। (3) आघमाघेनान्त्यमन्त्येन। (4) केवलैः सप्तकं गुण्यात्। (5) वेष्टनम्। (6) यावदूनं तावदूनम्। (7) यावदूनं तावदूनीकृत्य वर्गं च योजयेत्। (8) अन्त्ययोर्दशकेऽपि। (9) अन्त्ययोरेव। (10) समुच्चयगुणितः। (11) लोपनस्थपनाभ्याम्। (12) विलोकनम्। (13) गुणितसमुच्चयः समुच्चयगुणितः। This text is a composition of 236 letters.</p>
2	<p><i>Devnagri</i>⁽²⁾ (DN).</p> <p style="text-align: center;">देवनागरी वर्णमाला Nine vowels स्वरः अ इ उ ऋ लृ ए ओ ऐ औ</p> <p style="text-align: center;">25 Varga consonants वर्गाः क् ख् ग् घ् ङ् च् छ् ज् झ् ञ् ट् ट् ड् ढ् ण् त् थ् द् ध् न् प् फ् ब् भ् म्</p> <p style="text-align: center;">4 Anthsthaletters: अन्तःस्थ य् र् ल् व्</p>

	<p>4 Ushmana letters: उष्मण श् स् ष् ह् 8 Yama letters यम</p> 
3	<p>Specific placements⁽³⁾</p> <p>देवनागरी वर्णमाला</p> <p>Nine vowels स्वरः 1 2 3 4 5 6 7 8 9</p> <p>5 x 5 Vargaconsonants वर्गाः 1 2 3 4 5 2 3 4 5 6 3 4 5 6 7 4 5 6 7 8 5 6 7 8 9</p> <p>Anthsthaletters: अन्तःस्थ 1 3 5 7</p> <p>Ushmana letters: उष्मण 2 3 6 9</p> <p>Yama letters यम 9 10 11 12 13 14 15 16</p>
4	<p><i>Sathapatya</i>⁽⁴⁾</p> <p>Sathapatya is the upved of athrav ved. Manasara is the scripture of sathapatya upved. The compilation of the text with English translation by Prasanna Kumar Acharya, is published by oriental books reprint corporation, 54-Rani Jhansi Road, New Delhi-110055. Chapter 2 shaloka 34 and 38 are about sathapatya measuring rod and measuring rope, and about their tutroly gods and about measure of measuring rod and measuring rope.</p> <p>References :-</p> <p>1. Mansara 2.34 (II), 2.38 (I)</p> <p>By Prasanna Kumar Acharya, oriental books reprint corporation, 54-Rani Jhansi Road, New Delhi-110055</p>

	<p>हस्तदण्डाभयोः प्रोक्त (क्त) विष्णुमूर्त्य (तिर) धिदेवता ॥ 2.34 (II),</p> <p>Vishnu is stated to be tutelary god of (the wood (for) both the yard-stick and the (measuring) rod. - Mansara 2.34 (II),</p> <p>वासुकी रज्जुदेवात्मा मानतद्ज्ञैः (तज्ज्ञः) पितामहाः (हः) । 2.38 (I),</p> <p>Vasuki (serpent-god) is the presiding deity of the measuring rope and Brahma is known as the presiding deity - Mansara 2.38 (I),</p>																		
5	<p>Characteristics⁽⁵⁾</p> <p>The Characteristics of sathapatya format of creations, including of human body, are of three folds (External, Middle & Internal), which have been elaborated by Upanshids, particularly the yoga upanshid and especially by mandal upanshid and Dishkanamurti upanshid.</p>																		
6	<p>External⁽⁶⁾,</p> <p>The formulation (बाहि) is of placements value $(7+1+2+9+2) = 21$, which is parallel with placement value of (पूर्व) / east. Shad chakras are of external characteristics (2, 4, 6, 8, 10, 12) parallel with boundary components of sathapatya measuring rod (a synthetic set up of hyper cubes H1 to H6)</p> <p style="text-align: center;">Sathapatya measuring rod</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th colspan="6">Hyper cubes 1 to 6</th> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>—</td> <td>□</td> <td>⊞</td> <td>⊞</td> <td>⊞</td> <td>⊞</td> </tr> </table> 	Hyper cubes 1 to 6						1	2	3	4	5	6	—	□	⊞	⊞	⊞	⊞
Hyper cubes 1 to 6																			
1	2	3	4	5	6														
—	□	⊞	⊞	⊞	⊞														
7	<p>Middle⁽⁷⁾</p> <p>Formulation (मध्य) is of placement values $9+1+7+1+1 =$</p>																		

	19, which is parallel with placement value of (मन) / mind. It is also parallel with placement values of formulation (अर्थ आकाश). Formulation (अर्थ) is of placement value 11 which is half of 22. the placement value of sathapatya.
8	Internal ⁽⁸⁾ . The formulation (आन्तरिक) is of placement values 22, which is double of (अर्थ) and is equal with sathapatya.
9	Vedic knowledge systems ⁽⁹⁾ The vedic knowledge systems are of sathapatya format of hyper cubes 1 to 6, as is the conclusion of doctoral thesis 'Mathematical basis of vedic literature' of Dr S K Kapoor. This thesis analysis in detail the vedic scripture: Shalkal Rig Ved Samhita, Adivalmki Ramayana, Urmahabhartam, Srimad Bhagwad Geeta, Sri Vishnushastranam Shotratriam, Srimad Durga Sapt Sati. Upanshids.  <ol style="list-style-type: none"> 1. Mandukyo Upanishad (Mantras 1-12) 2. Gaudpadas Karika's (Chapters 1-4) 3. Taittiriya Upanishad (Chapter 8) 4. Isho Upanishad (Mantra 17) 5. Katho Upanishad (I.ii.15,16,17) 6. Mundakyo Upanishad (II.ii.4,6) 7. Prasno Upanishad (5th question and answer 1-7) 8. Chhandgo Upanishad (I.1.i, III.1.i, IV.1.i) 9. Bharidarnyako Upanishad (I.3.23) 10. Shvetastiro Upanishad (2.8) 11. Matrianyo Upanishad (5.4,5) 12. Atharvshiro Upanishad (Mantra 4) 13. Shukrhyo Upanishad (8.10) 14. Pranvo Upanishad (Mantras 1-13) 15. Brahmano Upanishad (Mantra 1) 16. Brahmvidy Upanishad (Mantras 1-12,39,54,55,61,69-72,74,76) 17. Kshukriko Upanishad (3,4,16,22(Hans)) 18. Yogtatvo Upanishad (36,99,100,137-140) 19. Sabalo Upanishad (4.3; 72x10 nerves) 20. Mandalbrahmno Upanishad (1.2,1.3,2.1,2.2,4.1) 21. Hanso Upanishad (10-14) 22. Jablyo Upanishad (1-9) 23. Maitry Upanishad (11) 24. Shadalyo Upanishad (sixth Khanda) 25. Parbrahmo Upanishad (2.5) 26. Katharudro Upanishad (2) 27. Aruniyo Upanishad (5) 28. Sanyaso Upanishad (8) 29. Naradprivarjko Upanishad (4.37, Ashatmoupdes) 30. Atambodho Upanishad (1) 31. Shatyayno Upanishad (16) 32. Yagvalvako Upanishad (4) 33. Paramhanparivarjgo Upanishad (3.4)

10	<p><i>Sathapatya</i> format⁽¹⁰⁾. The conclusion of above thesis is that the mathematical basis of vedic literature is of sathapatya format, of features and characteristics as under:</p> 
11	<i>Chatush peet</i> ⁽¹¹⁾
12	Creator ⁽¹²⁾
13	<i>Brahma</i> ⁽¹³⁾ .
14	Titulory (God) ⁽¹⁴⁾
15	Measure ⁽¹⁵⁾
16	<i>Sathapatya</i> measuring rod ⁽¹⁶⁾
17	Rope ⁽¹⁷⁾ .
18	<i>Vishnu</i> ⁽¹⁸⁾
19	<i>Vashuki Naag</i> ⁽¹⁹⁾
20	283 letters ⁽²⁰⁾ ,
21	236 letters ⁽²¹⁾ .
22	36 distinct ⁽²²⁾ letters.
23	Vowel ⁽²³⁾ ,
24	Yama ⁽²⁴⁾ letter.
25	Alphabet ⁽²⁵⁾ ,
26	Numbers alphabet ⁽²⁶⁾ ,
27	Numbers text ⁽²⁷⁾
28	<i>Sathapatya</i> text ⁽²⁸⁾
29	Sankhiya ⁽²⁹⁾ Nishta
30	Yoga ⁽³⁰⁾ Nishta.
31	Mandal ⁽³¹⁾ upanshid
32	Dhakshna murti ⁽³²⁾ Upanshid.
33	Manifestations ⁽³³⁾
34	Uma ⁽³⁴⁾
35	Neelkanth ⁽³⁵⁾
36	Trilochan ⁽³⁶⁾
37	(Shiv ⁽³⁷⁾).
38	Solid order ⁽³⁸⁾
39	Spatial order ⁽³⁹⁾