

रूपं यत् तत् प्राहुरव्यक्तमाद्यं,  
 ब्रह्म ज्योतिर्निगुणं निर्विकारम्  
 सत्तामात्रं निर्विशेषं निरीहम्,  
 स त्वं साक्षाद् विष्णुरध्यात्मदीपः (4)

‘You are Lord Viṣṇu Himself, the illuminator of (all) psycho-physical organisms, the indefinable Reality, which the Vedas declare as the unmanifest cause consisting of (mere) consciousness, transcending the three gunas, absolute existence, unqualified and devoid of activity’.

(Shrīmad Bhāgavata X-3-24)

## 2. THE IMPORTANCE OF MATHEMATICS

The importance of mathematics in the materialistic gains is well-known. For a virtuous enjoyment of senses, the knowledge of seasons, lunar day, star etc. which is based on mathematics is necessary. For the performance of religious rituals like yajñas etc, the knowledge of muhūrta (auspicious time) and the number of ācāryas (preceptors) yajamānas (hosts) and goods is necessary. For the emancipation, the knowledge of the number of elements is necessary. The computation of place, time and material things falls within the realm of mathematics. The speed of light, the duration of creation, its status, the period of disintegration (annihilation) the relative distances between various celestial abodes is possible only by the study of ancient Vedic literature. Those that fall within the ambit of time

‘For the ‘knowledge’ (the Buddhist doctrine) it is said that neither this creation is zero nor a non-zero; nor it is both i.e. zero and non-zero. Whatever is the nature of Tathāgata, this world is of that nature only; if the realized-one (Tathāgata) is nature-less then, this world is also nature-less.’

(M.K. 22/11.6)

‘व्यवहारमनाश्रित्य परमार्थो न देश्यते  
परमार्थमनागम्य निर्वाणं नाधिगम्यते  
विनाशयति दुर्दृष्टा शून्यतामन्दमेघसम्  
सर्पो वा दुर्गृहो तो वा विद्या वा दुष्प्रसाधिता  
यः प्रतीत्यसमुत्पादः शून्यतां तां प्रचक्षते  
सा प्रज्ञप्तिरुपादाय प्रतिपत्सैव मध्यमा’

(म.का. २४/१०.११.१८)

‘The absolute truth cannot be preached without taking recourse to practical behaviour. Without reaching the absolute truth, the salvation cannot be attained. The doctrine of zeroism (śūnyavāda – taking the world as non-existent-zero) not well-understood destroys the dull – slow-talented-person like a snake not well-caught or the ‘teaching’ not well-practised. Whatever is pratitya-samutpāda\* (accepting products with the conviction of their causes) it is called the zeroism. It is the final ‘teaching’ having been realized; it is also the mean mode of behaviour (Madhyamā pratipat – the middle way).’  
(M.K. 24/10.11.18)

According to Vedānta philosophy, the final element has been called , एकोवशी (Kāthopaniṣat 2.2.12)

The 'Only One' and the 'Master' (lord of all). सदेव सौम्येदमग्र आसीदेकमेवाद्वितीयम् (Chāndogya Upaniṣat 6.2.1) 'O gentle-one! It, the truth was always in the beginning of the creation' – the only One without a second'. In this statement the element has been called devoid of three distinctions, swagata (within itself due to parts) sajatiya (between similars) and vijatiya (between dissimilars). The idea is that because of being devoid of all the three distinctions – between own parts, similars and dissimilars the 'one' being the ultimate of 'unqualified' has been called the zero – like zero in the realm of mathematics. The qualified zero which is the cause of further products is the 'one' the seed of all numbers. The product, the qualified 'one' is the first-number 'one' famous in mathematics. Its presentation as in Devanāgarī script is indicative of the fact that it is conjoined with zero and that is why there is 0 on its head.(1)

It should be remembered, the 'zero' and unreal often mean absence of existence but at times as per the context they mean 'existence' also like a girl with small abdomen (where the pregnancy is not clearly perceptible). In शून्यतुलां दधतः (Likened to nothingness, the zero – Srimad Bhagavata X.87.29) the Brahma has been described as similar to zero and not zero as such. अतिशून्यो विमर्दश्च भेरीशब्दस्ततो भवेत् महाशून्यं ततो याति सर्वसिद्धि समाश्रयम् (सौभाग्यलक्ष्म्युपनिषत् ८,९). 'Then, there shall be a pounding sound of the kettle-drum so that nothing can be heard.' Then one enters the great nothingness (zero) which is the seat of all successes. (S.L.U. 8.9).

# GAṆITA DARSHANA

**Shri Hari**  
**I bow to Lord Gaṇesha**

**Gaṇita Darshana**  
*(The Philosophy of Mathematics)*

## 1. BENEDICTION

हीं नमो वरदाय विघ्नहर्त्रे (1)

Om 'Hrīm', I bow to the dispeller of obstructions  
and giver of boons (1)

(Gaṇesh-purvatāpinī-upniṣat-1)

महासरस्वती देवी जिह्वाग्रे सन्निविश्यताम् (2)

'Let goddess Sarasvatī rest on the tip of my  
tongue' (2)

(Sarasvatī Rahasya-Upniṣat-4)

नमोऽनन्ताय महते कृष्णायकुण्ठमेघसे

योगेशाय च योगाय ब्रह्मणेऽनन्तशक्तये (3)

'I bow to Lord Kṛṣṇa the great, the endless and of  
unhindered intellect, the lord of yogis and yoga who is  
the Brahma himself with infinite powers' (3)

(Sāma-Rahasya-Upniṣat)