

'Vi' is a root from the language of Sanskrit whose meaning is to 'separate' and this combines with 'D' whose meaning is 'light' and produces 'Dvi' a word from the language of Sanskrit whose primordial meanings are that which separates (vi) from the light (d) and whose secondary meanings are 'two'.

'Dvi' and 'dva' whose meanings are 'two' are also the source of the word 'two' as the 'D' and the 'T' which are both dentals commonly interchange and this same interchange occurs with the 'V' and the 'W' hence 'Dvi' and 'Dva' evolve to become 'twa' 'twee' and 'two'.

"It is true that even across the Himalayan barrier India has sent to the West such gifts as grammar and logic, philosophy and fables, hypnotism and chess and above all numerals and

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the decimal system" American Historian William Durant, author of the widely acclaimed "The Story Of Civilisation".



'Tri' is a word from the language of Sanskrit whose meaning is 'three' as seen within 'tri kala jnana' meaning 'one who knows past, present and future' as seen within 'triveni' meaning the three great rivers, Ganga, Yamuna, Sarasvati and as seen within 'trivikrama' which are the three steps of Visnu.

'Tri' departs the shores of Vedic India to become the Indo/euro 'trei' whose meaning is 'three' and the Greek 'treis' the Old Saxon 'thria' the Old Frisian 'thre' the Latin 'tres' the Danish 'tre' and eventually we arrive at the word 'three' whose origins are the ancient language of Sanskrit.

"The Hindu–Arabic or Indo–Arabic numerals were invented by mathematicians in India. Persian and Arabic mathematicians called them "Hindu numerals". Later they came to be called "Arabic numerals" in Europe because they were introduced to the West by Arab merchants." Wikipedia.



'Catur' is a word from the language of Sanskrit whose meaning is 'four' as seen in 'caturmasa' meaning the four (catur) months (masa) of the rainy season and 'caturmukha' the four (catur) faces (mukha) of Brahma and 'catur' can be seen in words such as "quarter' 'quad' 'quadrangle' 'quadruped' 'quartet' and 'quarantine'.

'Catur' departs the shores of Vedic India to become the Indo/euro 'kwetar' whose meaning is 'four' and the Proto Germanic 'fedwar' the Gothic 'fidwar' the Old Frissian 'fiuwer' the Danish 'fire' the Swedish 'fyra' the Old Norse 'fjorir' the Old English 'feower' and eventually the word 'four'.

"The Indian system of counting is probably the most successful intellectual innovation ever

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devised by human beings. It has been universally adopted. ...It is the nearest thing we have to a universal language". John D. Barrow, The Book of Nothing (2009) chapter one "Zero - The Whole Story".



'Panca' is a word from the language of Sanskrit whose meaning is 'five' as seen within 'pancavidya' the five (panca) branches of knowledge (vidya) as seen within 'pancakarma' the five (panca) actions (karma) and as seen within 'panca tattva' the five (panca) truths (tattva).

'Panca' whose meaning is 'five' departs the shores of Vedic India to be seen within the Indo/euro 'penke' meaning 'five' and as the 'P' has a tendency to become an 'F' this becomes the Proto Germanic 'fimfe' the Old Saxon 'fif' the Old English 'fif' and eventually the word 'five'.

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"It is the ancient Indian culture that has regarded the science of numbers as the noblest of its arts. A thousand years ahead of Europeans the Indians knew that the zero and infinity were mutually inverse notions". The Universal history of numbers by Georges Ifrah.



'Sat' and 'sas' are words from the language of Sanskrit whose meanings are 'six' as seen within 'sastham' whose meaning is 'the sixth day of a lunar fortnight' and as seen within 'satkarman' which are the six (sat) duties (karman) of a brahman.

'Sas' whose meaning is 'six' journeys to the lands of Iran where it becomes the Persian 'shash' the Greek 'hex' the Latin 'sex' the Lithuanian 'sesi' the German 'sechs' the Dutch 'zes' the Danish 'seks' and eventually we arrive at the word we know today as 'six'.

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"It is India that gave us the ingenious method of expressing all numbers using ten characters, giving these numbers simultaneously a value absolute and a value of position; a fine and important idea, which seems so simple now, that we hardly appreciate its merit. But this very simplicity, the extreme ease resulting in all calculations, place our system of arithmetic in the first rank of useful inventions; and we appreciate the difficulty of achieving this, considering that it escaped the genius of Archimedes and Apollonius, two of the greatest and most honored men of antiquity". - Pierre-Simon Laplace, Exposition du Système du Monde, Vol. 2.



'Sapta' is a word from the language of Sanskrit whose meaning is 'seven' as seen within the 'saptarishis' the seven (sapta) sages (rishis) as seen within 'saptapuri' the seven (sapta) holy cities (puri) and as seen within 'saptasindhu' the seven (sapta) holy rivers (sindhu).

'Sapta' whose meaning is 'seven' can be seen within the Indo/euro 'septm' whose meaning is 'seven' the Proto Germanic 'sebum' the Gothic 'sibun' the Old Church Slavonic 'sedmi' the German 'sieben' the Old English 'seofon' and eventually the word 'seven'.

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"Our modern numerals 0 through 9 were developed in India. Mathematics existed long before the Greeks constructed their first right angle. On the other hand George Cheverghese Joseph (author of The Crest of the Peacock: Non-European Roots of Mathematics) points out that the early Indian mathematics contained in the Sulbasutras (The Rules of the Cord) contain their own version of the Pythagorean theorem as well as procedure for obtaining the square root of 2 correct to five decimal places. The Sulbasutras reveal a rich geometric knowledge that preceded the Greeks." The Ancient Roots of Modern Science - By Dick Teresi p. 32)



'Asta' is a word from the language of Sanskrit whose meaning is 'eight' as can be seen within 'janmastami' a festival which celebrates the birth of Lord Krsna who took birth (janma) on the eighth (astami) day of the dark fortnight and we have 'astanga yoga' which means the eight (asta) limbed (anga) path of yoga.

'Asta' whose meaning is 'eight' can be seen within the Old Norse 'atta' whose meaning is 'eight' the Swedish 'atta' the Old Saxon 'ahto' the Proto Germanic 'akhto' the Greek 'okto' the Old English 'eahta' and eventually we arrive at the word 'eight'.

"The measure of the genius of Indian civilisation, to which we owe our modern (number) system, is all the greater in that it was the only one in all history to have achieved this triumph. Some cultures succeeded, earlier than the South Asian cultures, in discovering one or at best two of the characteristics of this intellectual feat. But none of them managed to bring together into a complete and coherent system the necessary and sufficient conditions for a number-system with the same potential as our own." Ifrah, Georges (2000), A Universal History of Numbers: From Prehistory to Computers, New York: Wiley, 658 pages, ISBN 0-471-39340-1.



'Nava' is a word from the language of Sanskrit whose meaning is 'nine' as can be seen within 'Navadvipa' meaning the nine (nava) islands (dvipa) and the birthplace of Lord Chaitanya and as seen within the 'navaratnas' which are the nine (nava) precious jewels (ratnas).

'Nava' whose meaning is 'nine' departs the shores of Vedic India and can be seen within the Iranian 'nava' meaning 'nine' the Indo/euro 'newn' the Proto Germanic 'newun' the Gothic 'niun'

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the German 'neun' and eventually we arrive at the word 'nine'.

"Our decimal system, which is derived from Hindu mathematics, where its use is attested already from the first centuries of our era. It must be noted moreover that the conception of zero as a number, and not as a simple symbol of separation, and its introduction into calculations, also count amongst the original contribution of the Hindus." Bourbaki, Nicolas (1998), Elements of the History of Mathematics.



'Dasa' is a word from the language of Sanskrit whose meaning is 'ten' and within the Vedas we find the father of Lord Rama whose name was 'Dasaratha' a great king and famous amongst the gods as one whose chariot (ratha) could travel within the ten (dasa) directions.

'Dasa' whose meaning is 'ten' departs the shores of Vedic India to foreign lands where its seen within the Indo/euro 'dekm' whose meaning is 'ten' the Greek 'deka' the Latin 'decem' and as the

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dental 'D' evolves to become a dental 'T' it eventually becomes the word 'ten'.

"Anachronistic as this labyrinthine mythology may appear to the foreign mind, many of India's ancient theories about the universe are startlingly modern in scope and worthy of a people who are credited with the invention of the zero, as well as algebra and its application of astronomy and geometry; a people who so carefully observed the heavens that, in the opinion of Monier-Williams, they determined the moon's synodical revolution much more correctly than the Greeks." Three Ways of Asian Wisdom – By Nancy Wilson Ross p. 64 - 67 and 74 - 76).



'Zero' can be traced back to the 2nd century B.C and the Indian scholar 'Pingala' and we have 'Aryabhatta' a mathematician who appeared in 500 AD as well as 'Brahmagupta' who appeared in 628 AD and decades later it was introduced to a Syrian bishop named 'Severus Sebokht' who spread it throughout the Arab world.

Within the Arabic world the decimal system was called 'hindsa' whose meaning is 'that which

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comes from India' and within the 9th century AD the Arabian mathematician 'Al Khuwarizma' had his work translated into Latin and was known as 'algoritmi de numero indorum' which means 'Al Khwarizma on the Hindu art of reckoning'.

"There has been no more revolutionary contribution than the one which the Hindus made when they invented zero" Mathematics for the millions - Lancelot Hogben.