

Learn. Play. Create. - chooMantra - Its Magical - Rajeev G.Mavinkurve

1 About π

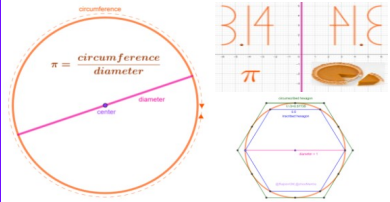
π (pi) is a constant which is the ratio of a circle's circumference to its diameter. The symbol π (16th letter of Greek alphabet) was first used by British mathematician William Jones in 1706 to represent the ratio and was popularized by Swiss mathematician Leonhard Euler, who adopted it in 1737. "pi" itself was derived from the 1st letter of the Greek word perimetros (means circumference)

It's the famous irrational number. In 1761, Johann Heinrich Lambert proved that π is irrational: that is, it cannot be expressed as a ratio of integer numbers.

In 1882, Ferdinand von Lindemann proved that π is transcendental as well. A transcendental number is a (possibly complex) number that is not an algebraic number - that is, not a root (i.e., solution) of a nonzero polynomial equation with integer coefficients.

The concept of pi has been in use since 2000 BCE. by Babylonians, Indians, Chinese, Arabs. Early in the 20th century, Indian mathematician Srinivasa Ramanujan developed exceptionally efficient ways of calculating pi that were later incorporated into computer algorithms.

2 Diagrammatic representation of π



Reflection of π approximation, 3.14 appears like 'PIE'. Archimedes estimated π by calculating perimeter of a regular polygon inscribed within the unit circle and a regular polygon circumscribing the circle.

3 Digits of π

The Guinness World Records logo and text: The most accurate value of pi is 50 trillion digits, and was achieved by Timothy Mullican (US) of North Alabama Charitable Computing on 29 Jan 2020.

11 decimal digits are accurate enough to estimate the circumference of any circle, that fit inside our earth, with an accuracy of less than 1 mm. 39 digits can estimate the circumference of any circle within the observable universe with a precision comparable to the radius of a hydrogen atom. NASA uses pi rounded to the 15th decimal. 3.141592653589793

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Table with 4 columns: Devanagari, LAST, Roman, and Indic Scripts. It contains the Sanskrit shloka and its translations in various languages including Assamese/Bengali, Gujarati, Kannada, Malayalam, Meetei Mayek, Oriya, Punjabi, Tamil, Telugu, and Urdu.

Katapayadi table showing the mapping of Sanskrit letters to digits 1-0. The table is organized into rows and columns for easy reference.

Grid showing the 30 decimal digits of pi (3.1415926535897932384626433832792) with corresponding Sanskrit letters and their Katapayadi values. Includes instructions on how to use the table to find the value of pi to a specific number of digits.

4 About the Shloka

The Samskrutam (Sanskrit) Shloka (verse) at the outset appears to be the praise for Lord Krishna. At another level, it is a dedication to Lord Shiva. Thus, while offering mantric devotional praise to God, it has also encoding of pi value.

kaTapayadi rule will decode the number encoded in the shloka. The details of the rule/method and the process of decoding this shloka using kaTapayadi rule o get the encoded value are done on this poster.

It is said that this shloka has a master key to calculate pi upto any number of places. I have not figured it out yet. When figured out, a new poster will be done to explain the same.

5 π Day

March 14 marks Pi Day, an annual celebration of the mathematical sign pi. Founded in 1988 by physicist Larry Shaw, March 14 was selected because the numerical date (3.14) represents the first three digits of pi. and it also happens to be Albert Einstein's birthday In 2009, the United States House of Representatives supported the designation of Pi Day

6 International Day of Mathematics

UNESCO's 40th General Conference decided Pi Day as the International Day of Mathematics in November 2019.

This day is the birth anniversary of Einstein as well as Vedic Mathematics book author Jagadguru Shankaracharya Swami Bharati Krishna Tirtha

7 Vedic Mathematics Book

Portrait of Swami Bharati Krishna Tirtha and text: Vedic Mathematics is a book written by the Indian seer Jagadguru Shankaracharya Swami Bharati Krishna Tirtha, and was first published in 1965. It contains a list of mathematical techniques, which the author says were retrieved from the Vedas and supposedly contained all mathematical knowledge. This shloka is mentioned in this book and it contains several amazing mathematics tricks.

8 About Sanskrit

Samskrutam (Sanskrit) is one of the oldest languages of the world and mother of languages. It has vast treasures of knowledge on various topics including music, art, architecture, maths, economics, literature, life, spirituality, yoga, ayurveda, astronomy, astrology to name a few. In fact, Vedas means knowledge. Sutras are a distinct type of literary composition, a compilation of short aphoristic statements. Each sutra is any short rule, like a theorem distilled into few words or syllables, around which teachings of ritual, philosophy, grammar, or any field of knowledge can be woven. Sanskrit Grammar Panini's Astadhyayi is full of sutras Panini has been considered the "first descriptive linguist" and even labelled as the "father of linguistics. Disambiguation, mnemonics, aphorisms, encoding schemes and other amazing techniques makes Sanskrit one of the world's most sophisticated languages.

Text: This Quick Reference sheet is proudly and lovingly dedicated to my Dad, philanthropist, Karma Yogi, Sahitya Ratna late Dr. G.H.Mavinkurve.

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