



NATIONAL



DAY

22 DECEMBER

**National Mathematics Day is celebrated
to commemorate the birthday of most
recognized Indian Mathematician
SRINIVASA RAMANUJAN who was born
on December 22, 1887.**

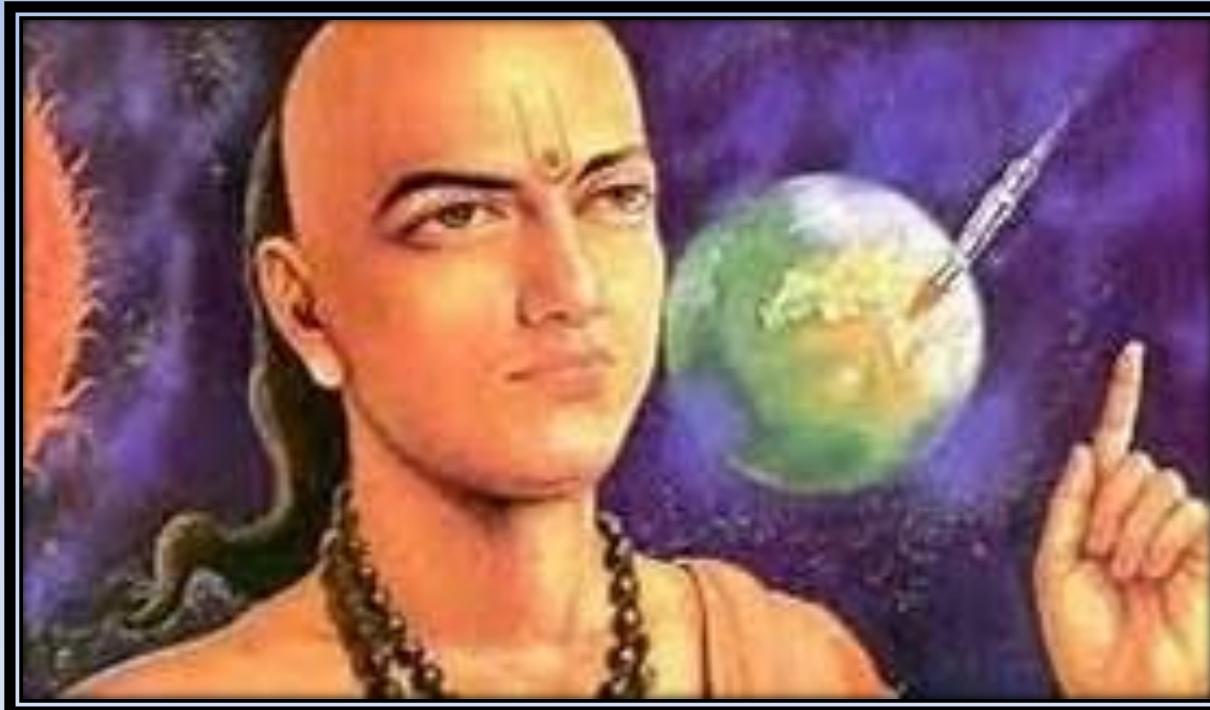
CONTRIBUTION OF INDIAN MATHEMATICIANS TO THE WORLD OF MATHEMATICS

SRINIVASA RAMANUJAN



- He was a Self-taught Indian mathematician who coined the idea of “Taxicab Numbers”.
- Ramanujan is most popular for his contribution in Analytical Theory of Numbers, Elliptic Functions, Continued Fractions, and Infinite Series.
- His contributions to the Theory of Numbers comprise pioneering discoveries of the properties of the Partition Function.

ARYABHATTA



- Aryabhatta was the first person to claim that the EARTH is spherical and it revolves around the SUN & stated the correct number of days in a year that is 365.
- He gave the formula $(a + b)^2 = a^2 + b^2 + 2ab$
- He worked on the PLACE VALUE SYSTEM using letters to signify NUMBERS and stating qualities

He is also famous for putting out concepts like:

- *Lunar eclipse and solar eclipse*
- *Rotation of Earth on its axis*
- *Reflection of light by moon*
- *Value of pi correct to 4 decimal places*
- *Circumference of Earth to 99.8 per cent accuracy.*

BRAHMAGUPTA



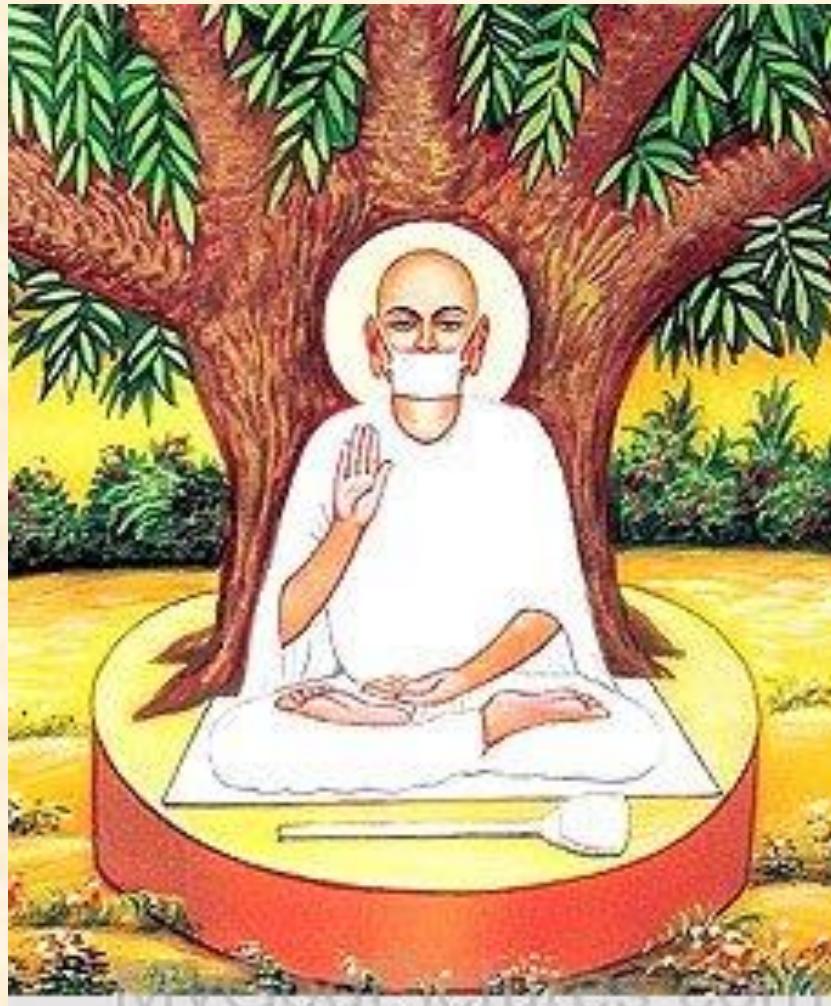
- Brahmagupta was born on 598 AD in Ujjain. He was an Indian Mathematician and Astronomer.
- His book *Brahmasphutasiddhanta* is the first text that mentions zero as a number.
- Introduction of zero (0) to mathematics, which stood for “NOTHING”, was the biggest contribution of Brahmagupta.
- He gave rules for facilitating the computation of squares and square roots along with finding the cube and cube-root of an integer.

BHASKARA



- Bhaskara was born in the year 1114 in Bijapur in Karnataka.
- He was an Indian mathematician and astronomer and is known as the greatest mathematician of medieval India.
- His main work Siddhanta Shiromani has laid foundations for many theories in Arithmetic, Algebra, Mathematics of the Planets, and Spheres.
- He was perhaps the first to conceive the Differential Coefficient and Differential Calculus, way before Newton and Leibnitz.
- He was the one who declared:
 - any number divided by zero is infinity.
 - The sum of any number and infinity is also infinity.

ACHARYA HEMCHANDRA



Hemachandra

- Hemachandra was an Indian Jain scholar and Poet. Recognised for his diverse knowledge in various fields, he gained the title Kalikāl Sarvagya (all-knowing of the Kali age)
- Hemachandra presented an earlier version of the Fibonacci sequence. It was presented around 1150, about fifty years before Fibonacci.
- Hemchnadra found out the number of different ways to construct an eight beat taal.

SHAKUNTALA DEVI



- **Shakuntala Devi (1929-2013)** is best known as “The Human Computer” for her ability to perform lengthy calculations in her head swiftly.
- In 1977, at Southern Methodist University in Dallas, she computed the 23rd root of a 201-digit number in 50 seconds.
- It took a Univac computer 62 seconds to do the same.
- In 1980, she correctly multiplied two 13-digit numbers in just 28 seconds at Imperial College, London.

MANJUL BHARGAVA



- Manjul Bhargava (born 8 August 1974) is a Canadian-American mathematician.
- He is a Professor of Mathematics at Princeton University.
- He is known primarily for his contributions to Number Theory.
- Bhargava was awarded the Fields Medal in 2014.
- He was awarded the prize for developing powerful new methods in
 - *The Geometry of Numbers, which he applied to count rings of small rank and*
 - *To Bound the Average Rank of Elliptic Curves.*



THANK YOU

