




GOVERNMENT
DEGREE COLLEGE

BHEL

AY: 2021-22.

MATHS

PROJECT



Maths Project

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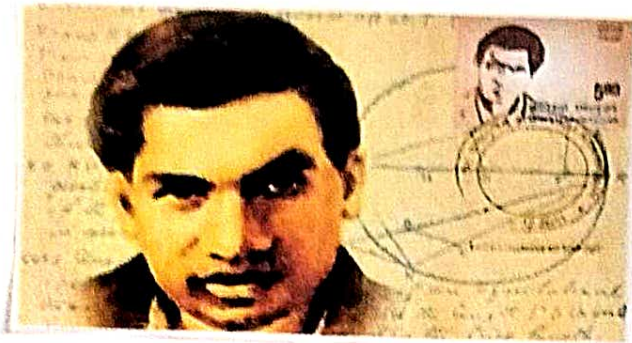
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Project Name:- To write about 4 Maths Scientists Biographies.

College Name:- Govt degree college serilingampally

Collection From:- Internet

1. Srinivasa Ramanujan



Srinivasa Ramanujan born, on December 22, 1887 and died April 26, 1920 Ramanujan made substantial contributions to the analytical theory of numbers and worked on elliptic functions, continued fractions and infinite series

Srinivasa Ramanujan was one of India's greatest Mathematical geniuses, He made substantial contributions to the Analytical theory of numbers and worked on elliptic functions, continued fractions and infinite series

Ramanujan was born in his grandfather's house in Erode, a small village about 400 km southwest of Madras

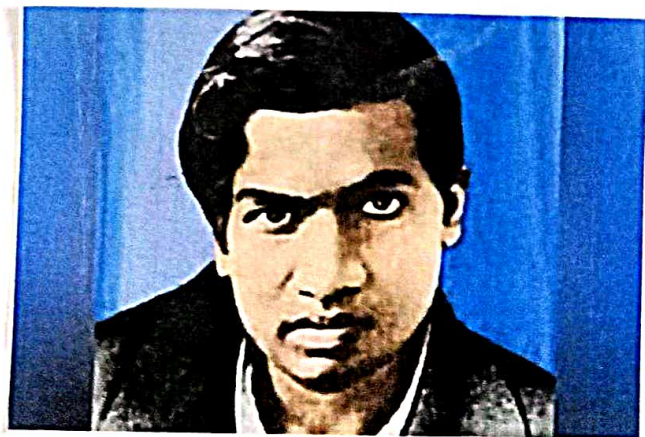
[Now Chennai] When Ramanujan was a year old his mother took him to the town of Kumbakonam, about 160 km near Madras. His father worked in Kumbakonam as a clerk in a cloth merchant's shop. In December 1889, he contracted smallpox.

When he was nearly five years old Ramanujan entered the primary school in Kumbakonam although he would attend several different primary schools before entering the town high school in Kumbakonam in January 1898. At the town high school, Ramanujan was to do well in all his subjects and showed himself an able all round scholar. In 1900 he began to work on his own on Mathematics summing geometric and arithmetic series.

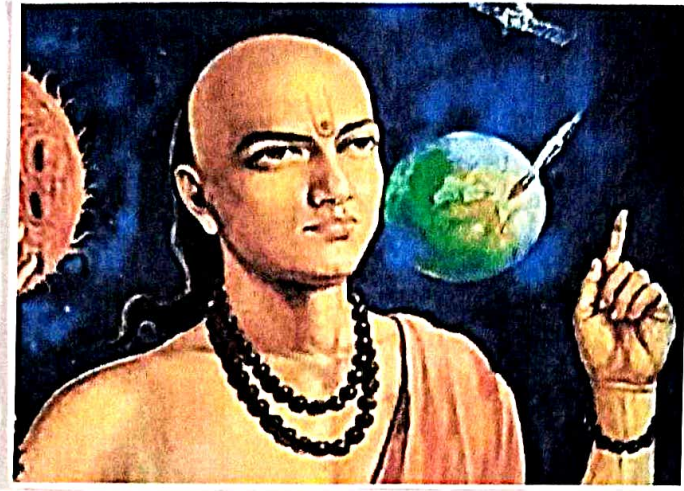
Ramanujan was born showing how to solve cubic equations in 1902 and he went on to find his own method.

To solve the 'quartic' The following years, not knowing that the 'quintic' could not be solved by radicals, he tried (and of course failed) to solve the quintic

It was in the town High School that Ramanujan came across a mathematics book by G.S. Carr called synopsis of elementary results in pure mathematics. This book, with its very concise style, allowed Ramanujan was later to write down mathematics since it provided the only model that he had of written mathematical arguments



2. Aryabhata



Aryabhata's *Sindhanta* circulated mainly in the north west of India and through the Sasanian dynasty [224-651] of Iran, had a profound influence on the development of Islamic astronomy. Its contents are preserved to some extent in the works of Varahamihira [flourished c. 550] Bhaskara I [flourished c. 629], Brahmagupta [598 c. 665], and others. It is one of the earliest astronomical works to assign the start of each day to midnight.

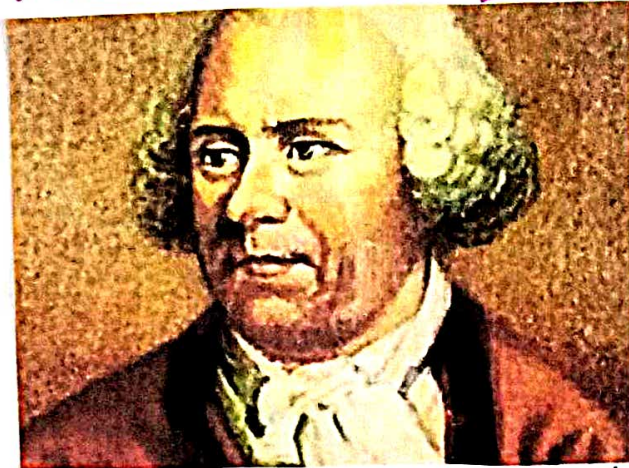
Aryabhatiya was particularly popular in South India, where numerous mathematicians over the ensuing millennium wrote Commentaries. The work was written in verse couplets and deals with mathematics and astronomy. Following an Introduction that contains astronomical tables and Aryabhata's system of phonetic number notation, in which numbers are represented by a consonant vowel monosyllable, the work is divided into three sections: *Grantha* [Mathematics] *Kala-kriya* ["Time calculations"] and *Graha* ["sphere"]



In *Grantha* Aryabhata names the first 10 decimal places and gives algorithms for obtaining square and cubic roots using the decimal number system. These

He treats geometric measurements employing $62,832/20,000$ ($C=3.1416$) for π , very close to the actual value 3.14159 and develops properties of similar right angled triangles and of two intersecting circles using the pythagorew theorem, he obtained one of the two methods for constructing his table of sines difference is proportional to sine. Mathematical series, quadratics equations, compound interest [involving a quadratic equation] praportions [ratios] and the solution of various linear equation are among the arithmetic and algebraic topics included Aryabhata's general solution for linear indeterminate equations, which Bhaskara, I called kuttakara ["pulverizer"], consisted of Breaking the problem down into new problems with successively the educleideaw algorithm and related to the method of continued fractions

3. Leonhard Euler



Leonhard Euler born on 15th April 1707. Basel, Switzerland and - died September 18, 1783, St. Petersburg, Russia]. Swiss mathematician and physicist, one of the founders of pure mathematics. He not only made decisive and formative contributions to the subjects of geometry, calculus, mechanics, and number theory, but also developed methods for solving problems in observational astronomy and demonstrated useful applications of mathematics in technology and public affairs. Euler's mathematical ability earned him the esteem of Johann Bernoulli, one of the first mathematicians in Europe at that time, and of

His sons Daniel and Nicolas, In 1727 he moved to St. Petersburg where he became an associate of the St. Petersburg Academy of Sciences and in 1733 succeeded Daniel Bernoulli to the chair of mathematics. By means of his numerous books and memories that he submitted to the academy, Euler carried integral calculus to a higher degree of perfection developed the theory of trigonometric and logarithmic functions reduced analytical operations to a greater simplicity and threw new light on nearly all parts of pure mathematics overtaxing himself. Euler in 1735 lost the sight of one eye. Then invited by Frederick the Great in 1741, he became a member of the Berlin Academy, where for 25 years he produced a steady stream of publications, many of which he contributed to the St. Petersburg Academy which granted him a pension.



In 1748, in his *Introduction to the Analysis of the Infinite* he developed the concept of function in mathematical analysis through which variables are related to each other and in which he advanced the use of infinitesimals and infinite quantities. He did for modern analytic geometry and trigonometry what the elements of Euclid had done for ancient geometry, and the resulting tendency to render mathematics and physics in arithmetical terms has continued ever since.

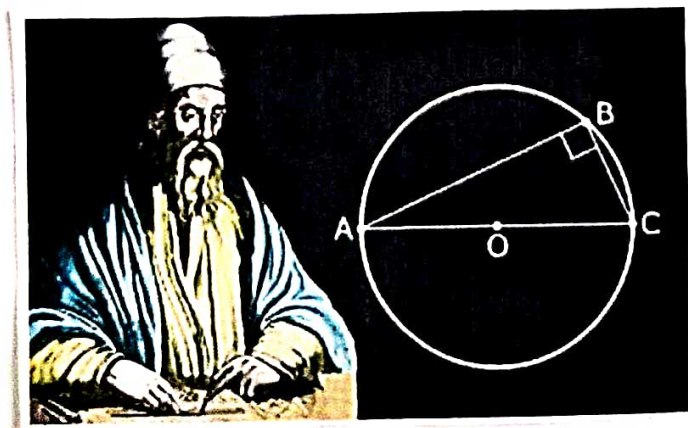
4. Euclid



Euclid was one among the famous the famous mathematicians, and he was known as the Euclidean is referred to as the Euclidean geometry which is there in the Geometry chapter of class IX. He spent all his life working for mathematics and set a revolutionary contribution to Geometry.

Life of Euclid's life nothing is known except what the Greek philosopher Proclus [c. 410-485 CE] reports in his 'summary' of famous Greek mathematicians. According to him, Euclid taught

at Alexandria in the time of Ptolemy I Soter, who reigned over Egypt from 323 to 285 BCE, medieval translators and editors often confused him with the philosopher Euclid's of Megara, a contemporary of Plato about a century before and therefore called him - Megarensis. Proclus supported his date for Euclid by writing "Ptolemy once asked Euclid if there was not a shorter road to geometry than through the Elements, and Euclid replied that there was no royal road to geometry." Today few historians challenge the consensus that Euclid was older than Archimedes [c. 290 - 212 / 211 BCE].



Sources and Contents of the Elements

Euclid compiled his Elements from a number of works of earlier men. Among these are Hippocrates of Chios [flourished c. 440 BCE]. The latest compiler before Euclid was Theudius, whose textbook was used by Aristotle [384-322 BCE]. The older elements were at once superseded by Euclid's and then forgotten for his subjects matter. Euclid's doubtless drew upon all his predecessors, but it is clear that the whole design of his work was his own culmination in the construction of the fine regular solids now known as the platonic solids.