

Srinivasa Ramanujan: A Brief Biography

Srinivasa Ramanujan (1887-1920) was an Indian mathematician who made extraordinary contributions to mathematical analysis, number theory, infinite series, and continued fractions, despite having little formal training in pure mathematics.

Born in Erode, Tamil Nadu, India, Ramanujan displayed exceptional mathematical talent from a young age. He independently developed many complex mathematical concepts and formulae, often without proofs. His work, documented in notebooks, contained thousands of theorems and equations.

In 1913, he began corresponding with the renowned British mathematician G.H. Hardy, which led to his invitation to Cambridge University. During his time in England, Ramanujan collaborated with Hardy, published numerous papers, and was elected to the Royal Society of London.

Ramanujan's life was tragically short, cut short by illness at the age of 32. However, his legacy continues to inspire mathematicians worldwide. His groundbreaking work continues to be studied and applied in various fields, leaving an indelible mark on the world of Mathematics. Government of India designated Ramanujan's birthday as National Mathematics Day on December 22 in 2011.

22	12	18	87
59	57	15	8
38	17	50	34
20	53	56	10

Magic square formatted by him containing his date of birth.

Best known for

- ❖ Landau-Ramanujan constant
- ❖ Mock theta functions
- ❖ Ramanujan prime
- ❖ Ramanujan theta function
- ❖ Ramanujan's sum
- ❖ Ramanujan's master theorems.
- ❖ His Last effective contribution 1729

$$= 1^3 + 12^3$$

$$= 9^3 + 10^3$$

1729- The smallest number that can be expressed by the sum of two cubes in two different ways. This number was Taxi No. travelled by Hardy to visit Srinivasa Ramanujan. This number 1729 is called as Hardy-Ramanujan Number.

The following events are conducted on the occasion of National Mathematics Day:

✚ Quiz Competition (24-12-2024)



Power Point Presentation on Applications of Mathematics in Science and Technology (26-12-2024)





✚ Poster Presentation on Biography of Srinivasa Ramanujan (26-12-2024)



OBJECTIVES OF THE EVENT : -

- To encourage the students to engage in scientific activities.
- Spreading the message of importance of mathematics and its applications in science and technology.
- Increase Interest and Appreciation for Mathematics.
- Demonstrate the relevance and applications of mathematics in real-world contexts.
- Inspire students with Ramanujan's story of perseverance, dedication, and exceptional mathematical talent.

REPORT : -

The National Mathematics Day celebrations proved to be a resounding success, thanks to the dedication and hard work of the entire mathematical staff. Their efforts in planning, organizing, and executing the various activities – the quiz, poster presentations, and PPT presentations – created an engaging and enriching experience for all participants. The enthusiasm and creativity displayed by the students were truly commendable. These celebrations not only commemorated the life and work of Srinivasa Ramanujan but also served as a valuable platform to showcase the diverse applications of mathematics and inspire a deeper appreciation for this fundamental subject. The mathematical staff played a pivotal role in fostering a vibrant and intellectually stimulating environment that encouraged students to explore the fascinating world of mathematics.

Learning outcome : -

- This event exhibited the contributions in the field of mathematics by Srinivasa Ramanujan which motivates and inspires the students for their future endeavors.
- Preparing for and participating in quizzes requires students to review and understand key mathematical concepts.
- Creating effective posters requires students to analyze information, synthesize it, and present it in a clear and concise manner.
- Focusing on the applications of mathematics helps students understand how math is relevant to their everyday lives and various professions.
- Learning about Ramanujan's contributions can demonstrate the impact of mathematics on various fields like physics, computer science, and engineering.
- By engaging in these activities, students gained a deeper understanding and appreciation for mathematics, develop essential skills, and be inspired by the achievements of great mathematicians like Srinivasa Ramanujan.

Head of the Department,

MATHEMATICS