

Ramanujan - Mathematics Genius in Morden India:



Born: 22 Dec 1887 in Erode, Tamil Nadu state, India

Died : 26 April 1920 in Kumbakonam, Tamil Nadu state, India

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 grandmother's house in Erode, a small village about 400 km southwest of Madras.

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 to teach himself mathematics.

In 1911 Ramanujan approached the founder of the Indian Mathematical Society for advice on a job. After this he was appointed to his first job, a temporary post in the Accountant General's Office in Madras. It was then suggested that he approach Ramachandra Rao who was a Collector at Nellore. Ramachandra Rao was a founder member of the Indian Mathematical Society who had helped start the mathematics library.

Ramanujan continued to develop his mathematical ideas and began to pose problems and solve problems in the Journal of the Indian Mathematical Society. He developed relations between elliptic modular equations in 1910. After publication of a brilliant research paper on Bernoulli numbers in 1911 in the journal of Indian Mathematical Society he gained recognition for his work, despite his lack of a university education, he was becoming well known in the Madras area as a mathematical genius.

In 1914, Hardy brought Ramanujan to Trinity College, Cambridge, to begin an extraordinary collaboration.

On 16 March 1916 Ramanujan graduated from Cambridge with a Bachelor of Science by Research (the degree was called a Ph.D. from 1920). He had been allowed to enrol in June 1914 despite not having the proper qualifications.

On 18 February 1918 Ramanujan was elected a fellow of the Cambridge Philosophical Society, His election as a fellow of the Royal Society was confirmed on 2 May 1918, then on 10 October 1918 he was elected a Fellow of Trinity College Cambridge, the fellowship to run for six years.

Ramanujan sailed to India on 27 February 1919 arriving on 13 March. However his health was very poor and, despite medical treatment, he died there the following year

Ramanujan worked out the Riemann series, the elliptic integrals, hyper geometric series and functional equations of the zeta function. Ramanujan's own work on partial sums and products of hyper geometric series have led to major development in the topic , Perhaps his most famous work was on the number $p(n)$ of partitions of an integer n into summands.

Ramanujan left a number of unpublished notebooks filled with theorems that mathematicians have continued to study. G N Watson, Mason Professor of Pure Mathematics at Birmingham from 1918 to 1951 published 14 papers under the general title Theorems stated by Ramanujan and in all he published nearly 30 papers which were inspired by Ramanujan's work.