

Who is this man?

Does anyone know?

Any ideas?

From the picture , can we guess the era, time frame, what part of the world, his age?

Era:

Part of the world:

His age:

Srinivasa Ramanujan



Born	22 December 1887 Erode, Madras Presidency now Tamil Nadu
Died	26 April 1920 (aged 32) Chetput, Madras, Madras Presidency now Tamil Nadu
Residence	Kumbakonam, Tamil Nadu
Nationality	Indian
Fields	Mathematics
Alma mater	Government Arts College Pachaiyappa's College
Academic advisors	G. H. Hardy J. E. Littlewood
Known for	Landau–Ramanujan constant Mock theta functions Ramanujan conjecture Ramanujan prime Ramanujan–Soldner constant Ramanujan theta function Ramanujan's sum Rogers–Ramanujan identities Ramanujan's master theorem
Influences	G. H. Hardy

MATHEMATICIAN'S CENTURY-OLD SECRETS UNLOCKED



Analysis by DNews Editors
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By Live Science Staff

While on his death bed, the brilliant Indian mathematician Srinivasa Ramanujan cryptically wrote down functions he said came to him in dreams, with a hunch about how they behaved. Now 100 years later, researchers say they've proved he was right.

"We've solved the problems from his last mysterious letters. For people who work in this area of math, the problem has been open for 90 years," Emory University mathematician Ken Ono said.

Srinivasa Ramanujan. Credit: Emory University

Ramanujan, a self-taught mathematician born in a rural village in South India, spent so much time thinking about math that he flunked out of college in India twice, Ono said.

NEWS: Dolphins May Be Math Geniuses

But he sent mathematicians letters describing his work, and one of the most preeminent ones, English mathematician G. H. Hardy, recognized the Indian boy's genius and invited him to Cambridge University in England to study. While there, Ramanujan published more than 30 papers and was inducted into the Royal Society.

"For a brief window of time, five years, he lit the world of math on fire," Ono told LiveScience.

But the cold weather eventually weakened Ramanujan's health, and when he was dying, he went home to India.

It was on his deathbed in 1920 that he described mysterious functions that mimicked theta functions, or modular forms, in a letter to Hardy. Like trigonometric functions such as sine and cosine, theta functions have a repeating pattern, but the pattern is much more complex and subtle than a simple sine curve. Theta functions are also "super-symmetric," meaning that if a specific type of mathematical function called a Moebius transformation is applied to the functions, they turn into themselves. Because they are so symmetric these theta functions are useful in many types of mathematics and physics, including string theory.

Ramanujan believed that 17 new functions he discovered were "mock modular forms" that looked like theta functions when written out as an infinite sum (their coefficients get large in the same way), but weren't super-symmetric. Ramanujan, a [devout Hindu](#), thought these patterns were revealed to him by the goddess Namagiri.

NEWS: Can a 16-year-old Be a Math Genius?

Ramanujan died before he could prove his hunch. But more than 90 years later, Ono and his team proved that these functions indeed mimicked modular forms, but don't share their defining characteristics, such as super-symmetry.

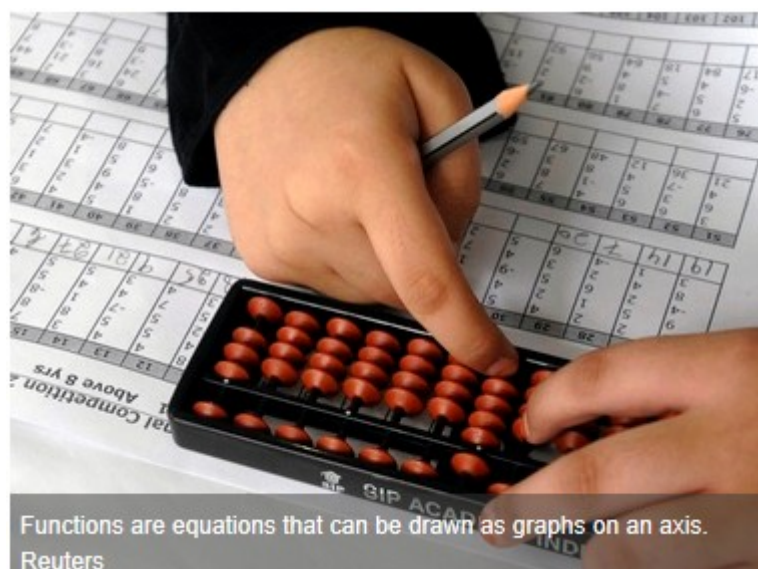
The expansion of mock modular forms helps physicists compute the [entropy, or level of disorder, of black holes](#).

NEWS: Are Math Smarts Innate?

In developing mock modular forms, Ramanujan was decades ahead of his time, Ono said; mathematicians only figured out which branch of math these equations belonged to in 2002.

"Ramanujan's legacy, it turns out, is much more important than anything anyone would have guessed when Ramanujan died," Ono said.

The findings were presented last month at the Ramanujan 125 conference at the University of Florida, ahead of the 125th anniversary of the mathematician's birth on Dec. 22.



Functions are equations that can be drawn as graphs on an axis.

Reuters



Geometry

Unit 4—

Day 1—turning the student loose...

Name: _____

Period: _____

New Years Day marks a time when we should all take a step back and look at ourselves. Think of what was (last year), and then look into the future and see if something can be determined, some folks call this 'making a new years resolution. I like to think of it as a chance to make a plan for the future . Mr. Monte is going to read a story to you and also tell you about a great mathematician, as he does this answer some of the following questions;

1. **Inspiration-** (write down something that inspires you, a sunset, a great athlete, a book, etc)....

2. **Talent-** (write down something you possess that is a talent, ability to make others laugh, draw a picture, cook something, play an instrument, etc.)...

3. **Discipline-** (what does that word mean to you, do you have discipline in anything you do in your life? Maybe it is you get up at the same time everyday, or go to bed at the same time everyday, etc.)

4. **Motivation-** (what motivates you to do what you do on a daily basis, what makes you tick and gives you the energy to live, etc.)

5. **Bicycle—** do you remember the first time you rode a bike? Do you remember how you finally got to ride a bike all by yourself?

6. **Intelligence, talent, knack,:** List some things that you have intelligence about, talent for, a knack to do:
 - Intelligence: I am smart about.....

 - Talent for: I have a talent for.....

 - I have a knack for.....

7. This last year I(talk a little about the year 2012 and you)

Geometry	Name: _____
Unit 4—	Period: _____
Day 1—turning the student loose...	

8. This year I am hoping for.....(talk about the things you hope will happen in 2013)....

9. After hearing about the great mathematician Ramanujan; describe a talent that you have that you could develop and work on this year!