CALENDAR

2025

Welcome to the Mathematical Odyssey 2025!

Each month unveils a unique theme, celebrating the beauty, patterns, and mysteries of mathematics. From the elegance of geometry to the wonders of numbers, let this calendar inspire your mathematical journey all year long. Discover, explore, and raise the mathematician within!

- **January** – World Logic Day: The Power of Logical Thinking

- **February** – Women in Science: Innovating the Future

- **March** – Pi Day: The Never-Ending Circle

- **April** – Math & Stats: Decoding Life's Patterns

- **May** – Women in Math: Pioneers of Precision

- **June** – Tau Day: The Full Circle Celebration

- **July** – Pythagorean Triplets: The Triangle's Secret

- **August** – Infinity Day: Journey Into the Endless

- **September** – Bernhard Riemann: The Master of Numbers

- **October** – Golden Ratio: Nature's Perfect Formula

- **November** – Virahanka Sequence: Rhythm in Numbers

- **December** – National Math Day: Celebrating Ramanujan's Brilliance

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2025 is a Harshad Number as it is divisible by 2 + 0 + 2 + 5

$5^2 + 20^2 + 40^2$

45^2

2025

$27^2 + 36^2$

$(1 + 2 + 3 + ... + 9)^2$

$1^3 + 2^3 + 3^3 + ... + 9^3$

$1 + 3 + 5 + ... + 87 + 89$
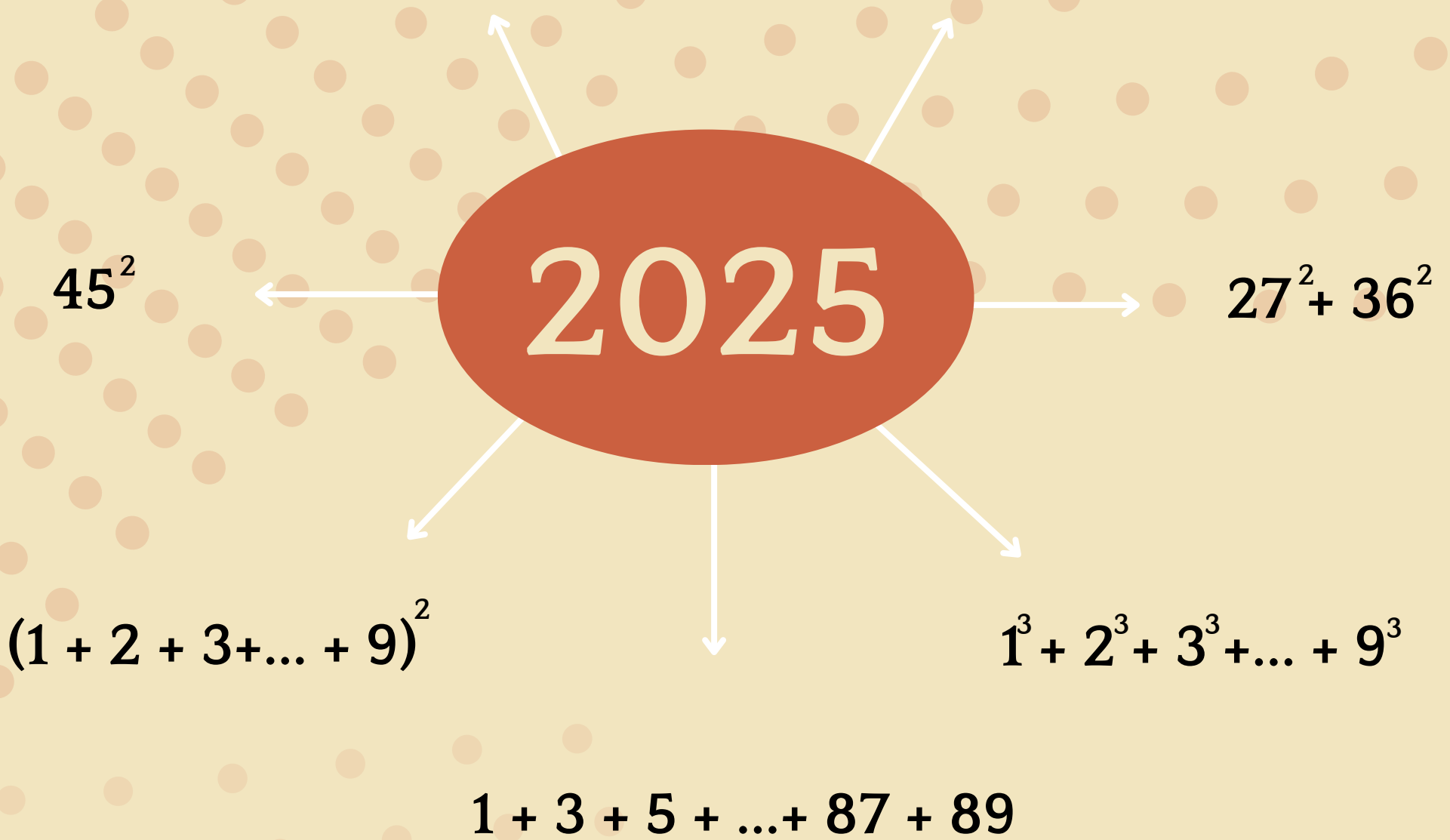
Raising A Mathematician Programs in 2025*

Month	Program
January	9-month <u>Olympiad Training</u> commences from January (Intermediate Math Olympiad Training Program, Advanced Math Olympiad Training Program & Informatics Olympiad Training Program)
February	<u>RAM TP Camp</u> application deadline February 28, 2025 <u>Epsilon India Camp</u> application deadline February 10, 2025 <u>Math.Biz Camp</u> applications open
March - April	Math.Biz Camp selection test
April - May	Epsilon India Camp Foundation Math Olympiad Training Program Workshop
May	Raising A Mathematician Training Program (RAM TP)
June	Math.Biz Camp Foundation Math Olympiad Training Program Module 1 (from June to August)
July	ROOTS Contest registrations open Maths Circle applications open for Chennai & Nagpur
August	Foundation Math Olympiad Training Program Module 2 (from August to October)
September - October	ROOTS Contest and Camp All Girls Math Nurture Camp applications open
November	Foundation Math Olympiad Training Program Module 3 (from November to January)
December	All Girls Math Nurture Camp (AG MNC)

*More programs will be added as we progress in 2025. Keep checking the calendar on the website on the 1st of every month for latest update.

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JANUARY 2025

World Logic Day: The Power of Logical Thinking

MON	TUE	WED	THU	FRI	SAT	SUN
		1 Satyendra Nath Bose's Birthday	2	3	4 Isaac Newton's Birthday	5 RAM's Olympiad Training Program registration deadline
6	7	8	9 C. P. Ramanujam's Birthday	10 Donald Knuth's Birthday	11	12
13	📌 14 World Logic Day	15	16	17	18	19
20 André-Marie Ampère's Birthday	21	22	23 David Hilbert's Birthday	24	25 Joseph-Louis Lagrange's Birthday	26
27	28	29	30	31		

📌 January 14, 2025

January 14 is World Logic Day, celebrating the foundation of mathematics. Logic ensures precision and consistency in reasoning, forming the backbone of proofs and algebraic manipulations. Without logic, mathematics would collapse like a house of cards. From Aristotle to Gödel, logicians shaped the field. Boolean algebra powered digital tech, while Russell clarified foundations. Logic keeps reasoning sound, as Rota said, "Logic is the hygiene of the mathematician." Let us celebrate by exploring impact of logic today!

QUIZ!

Alice says, "Bob is lying". Bob says, "Alice and Carol are lying". Carol says, "I am not lying". Only ONE of them is telling the truth. Can you figure out who is telling the truth?

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FEBRUARY 2025

Women in Science: Innovating the Future

MON	TUE	WED	THU	FRI	SAT	SUN
					1	2
3	4	5	6	7 e-day	8	9
10	11 International Day of Women & Girls in Science.	12	13	14 Ferris Wheel Day	15 Galileo Galilei's Birthday	16
17 Ronald Fisher's Birthday	18	19 Georg Cantor's Birthday	20	21	22 Palindrome Day	23
24	25	26	27	28 National Science Day	★ C. S. Seshadri's Birthday fall on February 29	

📌 February 11, 2025

February 11 honors India's mathematical heroines! T. A. Sarasvati Amma revived ancient mathematical wisdom, Sujatha Ramdorai's breakthroughs in algebra earned global acclaim, and Neena Gupta's work in affine geometry won prestigious awards. Mangala Narlikar enriched number theory, inspiring countless minds. These women defied conventions, fueled by an unquenchable thirst for mathematical discovery. Today, we celebrate their triumphs and the doors they opened for generations to come. Let their stories inspire, empower, and ignite the mathematical spark within. Join the chorus of tribute on International Day of Women and Girls in Science, and let the world resonate with the rhythm of their achievements!

QUIZ!

Who was the first woman to win a Nobel Prize, and in which field?

A. Marie Curie, Physics

B. Rosalind Franklin, Chemistry

C. Ada Lovelace, Mathematics

D. Dorothy Hodgkin, Medicine

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MARCH 2025

Pi Day: The Never-Ending Circle

MON	TUE	WED	THU	FRI	SAT	SUN
					1	2
3	4	5	6	7	8	9
10	11	12	13	14 Albert Einstein's Birthday and Pi Day	15	16 Georg Ohm's Birthday
17	18	19	20	21 Joseph Fourier's Birthday	22	23 Pierre-Simon Laplace's Birthday
24	25	26	27	28	29	30
31 Rene Descartes's Birthday						

📌 March 14, 2025

March 14 unfolds as a sacred celebration for math enthusiasts worldwide—Pi Day! At precisely 1:59 (3.14159), the irrational harmony of Pi resonates, symbolizing the infinite and elegant beauty of mathematics. This transcendental constant weaves through circles, spheres, and cylinders, guiding the rhythms and patterns of nature. As we revel in Pi's endless digits, we pay tribute to the ancient Indian Mathematicians, Greek Mathematicians, and visionaries who unraveled its mysteries over centuries. Today, let Pi inspire curiosity, ignite creativity, and bring humanity together in a shared pursuit of knowledge, precision, and wonder. Want to learn more? Click here: https://www.piday.org/

Additionally, on March 14, the world gathers to celebrate the International Day of Mathematics, recognized by UNESCO since 2019. This global tribute highlights mathematics as a universal language, connecting cultures and fields. The 2025 theme celebrates creativity in mathematical discovery and art, demonstrating how blending math with art inspires fresh ideas and mesmerizing creations. Want to learn more? Click here: https://www.idm314.org/

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APRIL 2025

Math & Stats: Decoding Life's Patterns

MON	TUE	WED	THU	FRI	SAT	SUN
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15 Leonardo da Vinci's & Leonhard Euler's Birthday	16	17	18	19	20
21	22	23	24	25	26	27
28 Kurt Godel's Birthday	29 Epsilon India Camp starts	30 Carl Friedrich Gauss's Birthday				

April 2025

Mathematics and Statistics Awareness Month 2025 celebrates the profound impact of math and statistics on our world, highlighting their roles in innovation, problem-solving, and informed decision-making. This April, educators, students, and professionals come together through workshops, challenges, and events to explore math's beauty and real-world relevance. From analyzing data to understanding the universe, the month emphasizes how math and statistics drive technological advances, shape policy, and unlock insights across fields. Join this month-long journey to see how numbers and logic shape the future! Want to learn more? Click here: https://ww2.amstat.org/mathstatmonth/aboutmathstatmonth.cfm

> " Mathematics is not about numbers, equations, computations, or algorithms; it is about understanding. – William Paul Thurston "

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MAY 2025

Women in Math: Pioneers of Precision

MON	TUE	WED	THU	FRI	SAT	SUN
			1	2	3 _Maryam Mirzakhani's Birthday_	4
5	6	7 _Carl Neumann's Birthday_	8	9	10	11
Epsilon India Camp Ends 📌12 International Day of Women in Mathematics	13	14 _Rudolf Lipschitz's and John Charles Fields's Birthday_	15	16	17	18 _Bertrand Russell's Birthday_
19	20	21	22	23	24	25
26 _Abraham de Moivre's Birthday_	27	28	29	30	31	

📌 May 12, 2025

The International Day of Women in Mathematics, celebrated on May 12, honors women's contributions to math and the inspiring legacy of Maryam Mirzakhani. As the first woman to win the Fields Medal, Maryam's groundbreaking work in geometry and complex surfaces shattered stereotypes and opened doors for women worldwide. Her journey from a young girl in Iran to a world-renowned mathematician is a story of passion, resilience, and boundless curiosity. This day celebrates her life and the courage of all women who transform the landscape of mathematics and inspire future generations.

FUN FACT
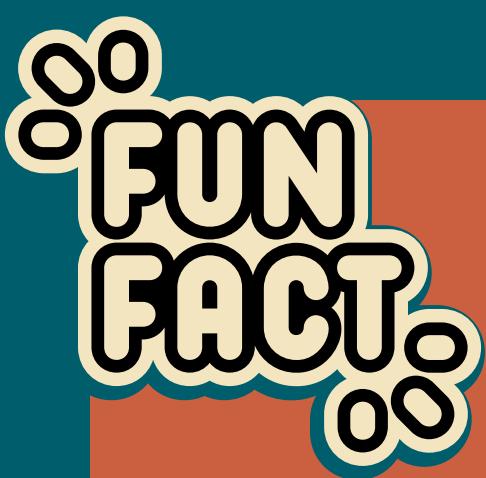
25.05.2025 is a mirrored date

JUNE 2025

Tau Day: The Full Circle Celebration

MON	TUE	WED	THU	FRI	SAT	SUN
						1
2 Andrey Markov's Birthday	3	4	5	6 Russian Mathematicians Day	7 M. S. Narasimhan's Birthday	8
9	10	11	12	13	14	15
16	17	18	19 Blaise Pascal's and Raj Chandra Bose's Birthday	20	21 Simeon Denis Poisson's Birthday	22
23 Alan Turing's Birthday	24	25	26	27 Augustus De Morgan's Birthday	📌 28 Tau Day	29
30						

📌 June 28 , 2025

Tau Day, celebrated on June 28 (6/28), honors the mathematical constant τ (tau), approximately 6.28, which represents twice the value of pi (π). Many math enthusiasts prefer tau over pi, believing it simplifies formulas, especially in geometry and trigonometry. By using tau, concepts like circles, radians, and oscillations become more intuitive, as tau elegantly defines the ratio of a circle's circumference to its radius, not its diameter. Tau Day encourages fresh perspectives in math, sparking debate, learning, and the joy of mathematical exploration. Want to learn more? Click here: https://tauday.com/

QUIZ!

I am a polygon. The number of diagonals that I have is 3 more than the number of sides I have. Can you find out the number of sides I have?

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JULY 2025

Pythagorean Triplets: The Triangle's Secret

MON	TUE	WED	THU	FRI	SAT	SUN
	1 Gottfried Wilhelm Leibniz's Birthday	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31 Gabriel Cramer's Birthday			

July, 2025

Pythagorean triplets, sets of three integers (a, b, c) satisfying $a^2 + b^2 = c^2$, beautifully unite geometry and number theory. They represent the sides of right-angled triangles, with classic examples like (3,4,5). This July highlights its charm with Pythagorean Triplets like (5,12,13), (8,15,17) and (10,24,26) that also form as right-angled triangles as you can see in the calendar. These mathematical patterns reveal how timeless principles quietly resonate in our everyday lives, reminding us of the elegance hidden in simple numbers and their connection to the natural world.

> " Mathematics knows no races or geographic boundaries; for mathematics, the cultural world is one country.
> – David Hilbert "

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AUGUST 2025

Infinity Day: Journey Into the Endless

MON	TUE	WED	THU	FRI	SAT	SUN
				1	2	3
4	5	6	7	8 International Day of Infinity and Manjul Bhargava's Birthday	9	10
11	12	13	14	15	16	17
18 K. Ramachandra's Birthday	19	20	21 Augustin-Louis Cauchy's Birthday	22	23	24
25	26	27	28	29	30	31

📌 August 8, 2025

The International Day of Infinity, celebrated on August 8 (8/8), symbolizes the endless possibilities and boundless nature of the infinite. Represented by the ∞ symbol, infinity transcends mathematics, inspiring philosophy, art, and science. This day honors humanity's pursuit of understanding the limitless, whether in the vastness of the universe, the depth of emotions, or infinite potential within individuals. Events often include lectures, art displays, and activities exploring the concept of infinity in diverse fields. By celebrating infinity, the day reminds us of the power of imagination, curiosity, and the infinite connections binding us to each other and the cosmos. Want to take a trip to infinity? Click here to find a way.

QUIZ!

You are walking on a path that stretches infinitely in both directions. You start at position 000. At each step, you can move either 222 steps forward or 333 steps backward.

The Challenge: Can you reach every integer position on the path? If not, which positions are unreachable?
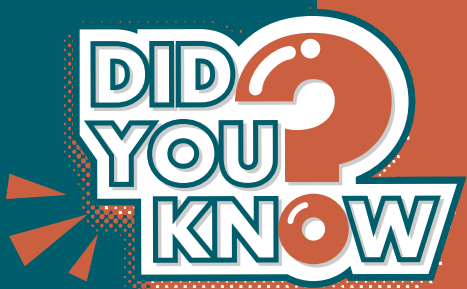
MON	TUE	WED	THU	FRI	SAT	SUN
1	2	3 *Lev Pontryagin's Birthday.*	4	5	6	7
8	9	10 *C. R. Rao's Birthday.*	11	12	13	14
15	16	📌 17 *Bernhard Riemann's Birthday*	18	19	20	21
22	23	24	25	26	27	28
29	30					

📌 September 17, 2025

Bernhard Riemann, born on September 17, 1826, was a brilliant mathematician whose ideas shaped modern mathematics. His groundbreaking work on geometry introduced the concept of curved spaces, laying the foundation for Einstein's theory of relativity. Riemann's study of prime numbers led to the famous Riemann Hypothesis, an unsolved problem central to number theory and understanding patterns in primes. His contributions expanded our view of dimensions and space, influencing physics, engineering, and beyond. Riemann's genius lies in his ability to connect abstract ideas with practical applications, making him a towering figure in the world of mathematics.

DID YOU KNOW?

That there's a One Million Dollar prize money for anyone who solves the Riemann Hypothesis and 5 other such famous unsolved problems. Want to know more? Check this link:
https://www.claymath.org/millennium-problems/

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OCTOBER 2025

Golden Ratio: Nature's Perfect Formula

MON	TUE	WED	THU	FRI	SAT	SUN
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25 Évariste Galois's Birthday.	26
27	28	29	30	31 Karl Weierstrass's Birthday.		

October, 2025

The Golden Ratio, approximately 1.618, is a mathematical proportion often celebrated in architecture for its aesthetic harmony. This ratio appears when the ratio of two quantities is the same as the ratio of their sum to the larger quantity. Iconic structures like the Parthenon in Greece, Taj Mahal in India, and even modern skyscrapers employ this ratio, creating visually pleasing designs that feel balanced. It is also used in spacing, proportions, and layout, influencing both ancient and contemporary architecture. The golden ratio is considered a bridge between art and mathematics, emphasizing the intersection of functionality and beauty in design. Want to know more? Click here

QUIZ!

The Golden Ratio can be found by solving this equation: $(x^2 = x+1)$. What is x?

A. 1.618

B. 2

C. 1

D. 0.618

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NOVEMBER 2025

Virahanka Sequence: Rhythm in Numbers

MON	TUE	WED	THU	FRI	SAT	SUN
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23 Fibonacci Day
24	25	26	27	28	29	30

November 2025

The Virahanka sequence, commonly known as the Fibonacci sequence, unfolds as a mesmerizing pattern in nature, art, and mathematics. Each number is the sum of the two preceding ones, forming a harmonious progression: 0, 1, 1, 2, 3, 5, and so on. This sequence underpins the golden ratio, a timeless symbol of proportion and beauty. When visualized as squares of increasing size, their arcs trace the golden spiral—a graceful curve found in nautilus shells, sunflower seeds, and galaxies. This synergy of numbers and aesthetics bridges the abstract with the tangible, embodying the universe's intrinsic rhythm and the elegance of mathematical design. Want to learn more? Click here.

QUIZ!

Number Sequence: What comes next in this sequence?

2, 6, 12, 20, 30, _

DECEMBER 2025

National Math Day: Celebrating Ramanujan's Brilliance

MON	TUE	WED	THU	FRI	SAT	SUN
1	2	3	4	5	6	7
8	9	10	11	12	13 George Polya's Birthday	14
15	16	17	18	19	20	21
22 Srinivasa Ramanujan's Birthday	23	24	25	26 Charles Babbage's Birthday and John Conway's Birthday.	27 Johannes Kepler's Birthday	28 John von Neumann
29	30	31				

📌 December 22, 2025

National Mathematics Day, celebrated on December 22, honors the remarkable contributions of Srinivasa Ramanujan, a genius who changed the way we understand mathematics. Despite having little formal training, Ramanujan made groundbreaking discoveries in number theory, particularly in areas like infinite series, prime numbers, and partitions. One of his most famous achievements was the discovery of an infinite series for calculating π, which had practical applications in computing. His work on the partition function, which deals with the ways numbers can be broken down, continues to influence mathematics today. This day reminds us of the beauty and wonder that mathematics brings to our lives.

QUIZ!

The Wizard's Game

$$(5-3) = (2 \times 1)$$

$$(7-5) = (3-2) + 1$$

Ramanujan loved to make equations using first n consecutive primes and 1. Below are two such equations. Can you create more such equations using 1, 2, 3, 5, 7, …, nth prime?