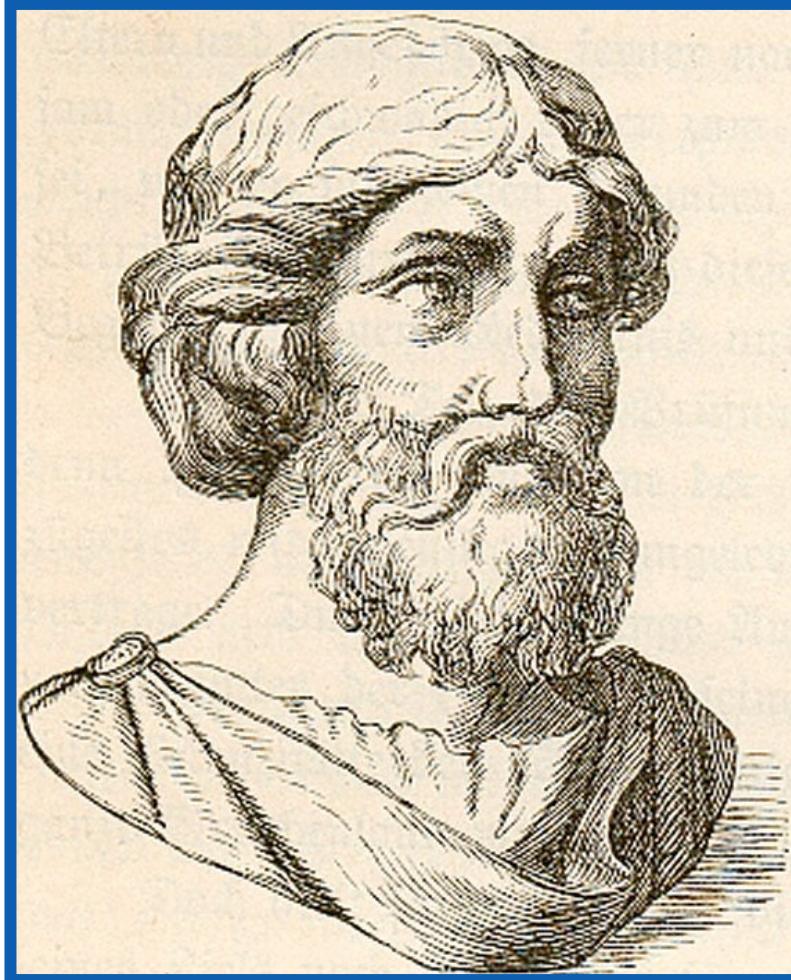


Famous Mathematicians

From around the world



Pythagoras

(c. 570 BCE – c. 495 BCE)

Nationality
Greek



Known for

Pythagoras' Theorem!
(even though he wasn't
the first to discover it)

Discovering basic music
theory and starting an
ancient religious
movement

π 

Euclid

(c. 300 BCE)

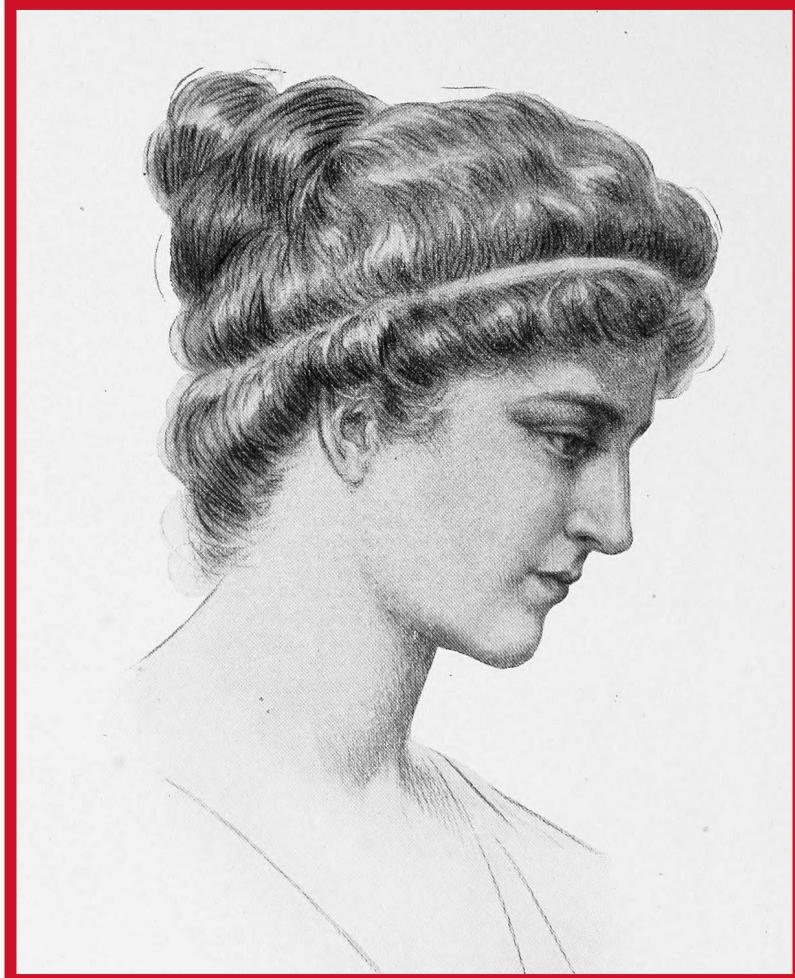
Nationality
Greek



Known for
Being seen as the
'founder of geometry'

Writing *The Elements*
13 volumes of maths
that are the second
most published books in
the world
(after the Bible)

 π



Hypatia

(c. 355 – 415)

Nationality
Egyptian

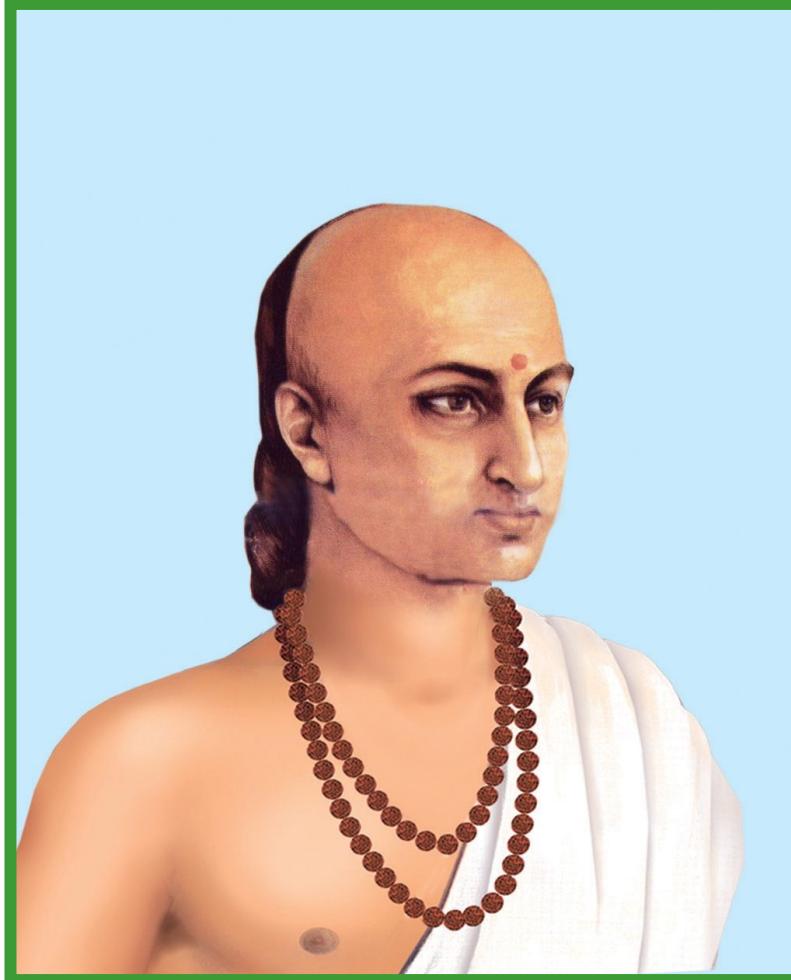


Known for

Being the earliest known female mathematician

Writing early textbooks on geometry and algebra

Teaching astronomy with devices called astrolabes



Aryabhata

(476 – 550)

Nationality
Indian

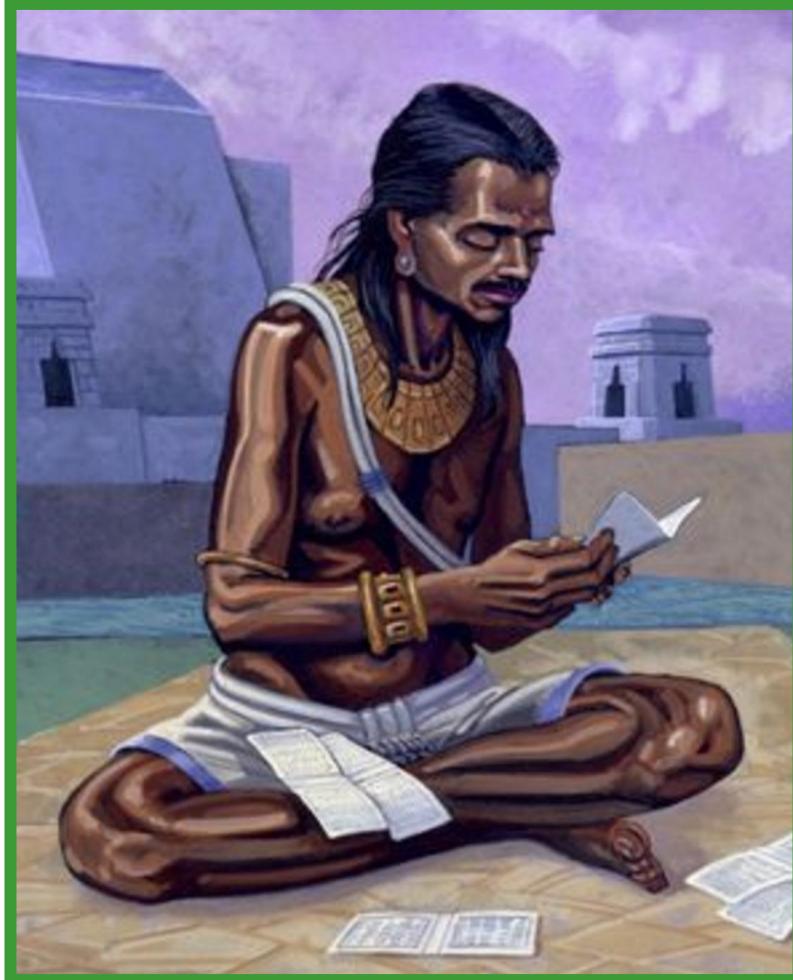


Known for

Writing *Aryabhatiyam*,
121 verses summarising
Hindu mathematics and
astronomy

Calculating π to four
decimal places

Finding the length of a
year to within 4 minutes



Brahmagupta

(c. 598 – c. 668)

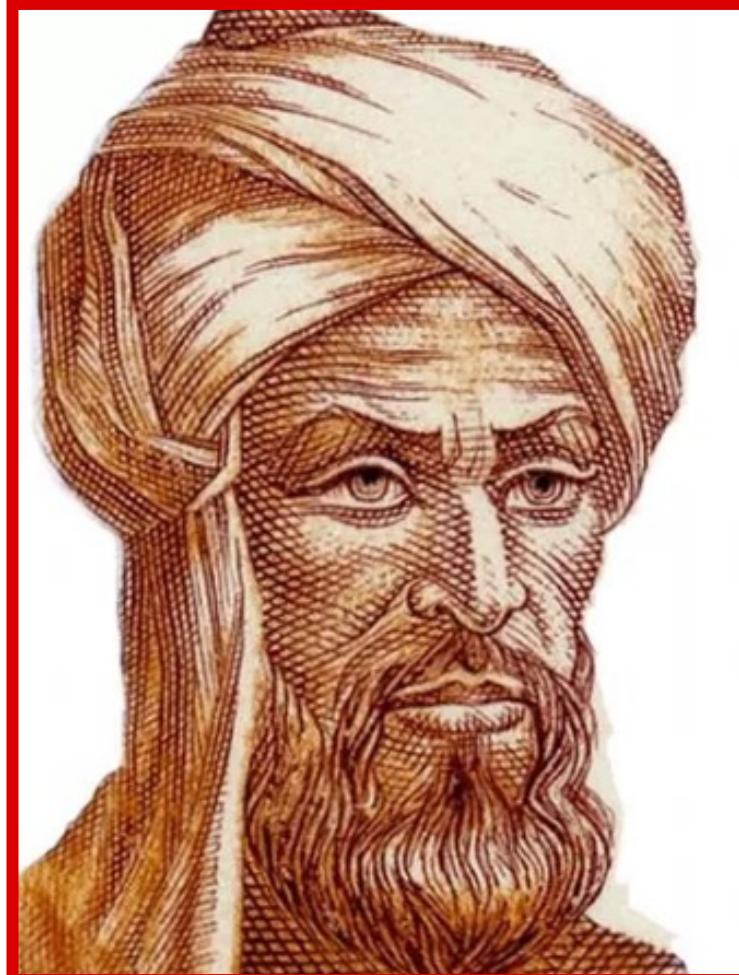
Nationality
Indian



Known for

Being the first to develop rules for calculating with the number zero

Finding the first general method for solving quadratic equations, equivalent to the quadratic formula

π 

al-Khwarizmi

(c. 780 – c. 850)

Nationality
Persian



Known for

Being the founder of algebra, developing the first systematic methods for solving equations

Introducing the Arabic numerals we use today to the Western world

 π



Leonardo Fibonacci

(1170 – 1250)

Nationality
Italian

Known for

The Fibonacci sequence!
(1, 1, 2, 3, 5, 8, 13, 21...)

Bringing the notation
and discoveries of
Asian and African
mathematics to Europe,
including the Arabic
numeral system



Robert Recorde

(c. 1512 – 1558)

Nationality
Welsh



Known for

Being the first English speaker to use + and – symbols

Inventing the equals sign (=) and using it in the earliest recorded algebraic equation

$$14x + 15 = 71$$

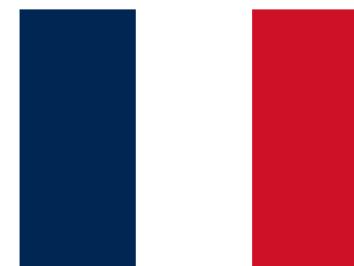
14.ꝝ. + .15.ꝝ = 71.ꝝ.



René Descartes

(1596 – 1650)

Nationality
French



Known for

Introducing Cartesian co-ordinates (x, y) and algebraic notation such as indices

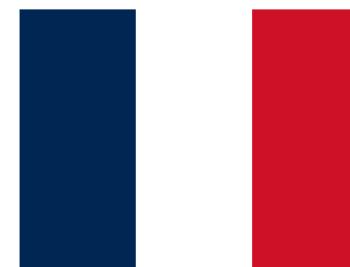
Being the founder of modern Western philosophy, claiming 'I think, therefore I am'



Blaise Pascal

(1623 – 1662)

Nationality
French



Known for

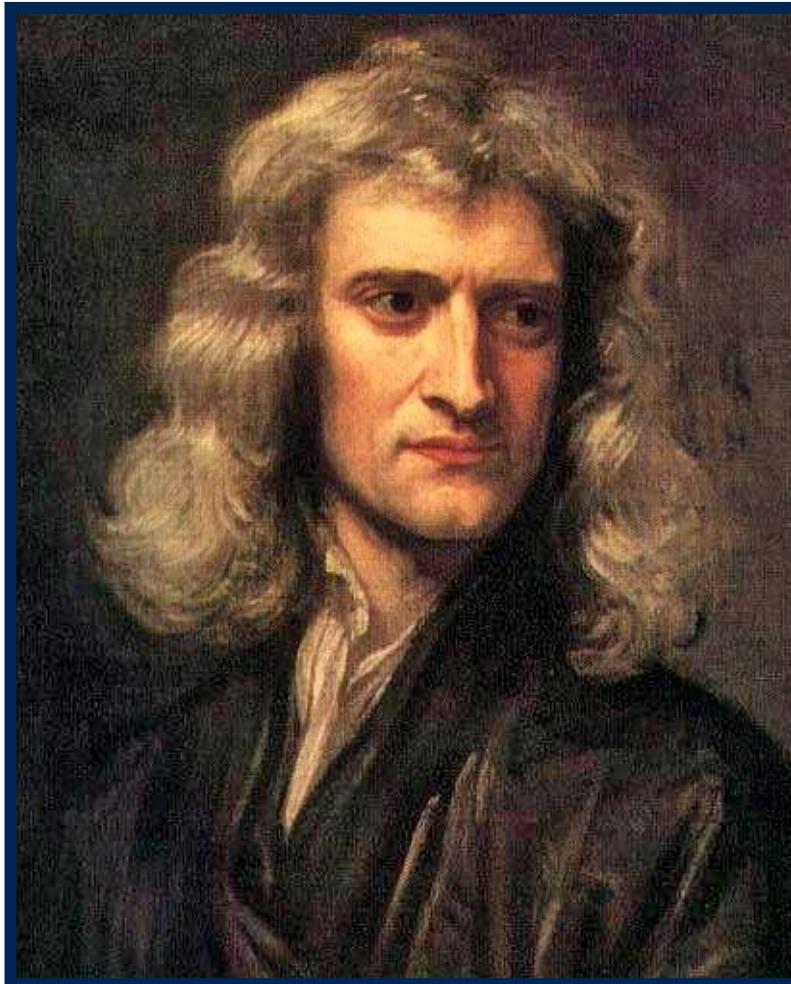
Pascal's Triangle!

$$\begin{array}{c} 1 \\ 1 \ 1 \\ 1 \ 2 \ 1 \\ 1 \ 3 \ 3 \ 1 \end{array}$$

Inventing the first mechanical calculator

Working with Fermat to develop the first theory of probability

π



Isaac Newton

(1642 – 1726)

Nationality
British



Known for

Studying the laws of gravity and mechanics

Inventing calculus, alongside Leibniz

Building the first reflecting telescope

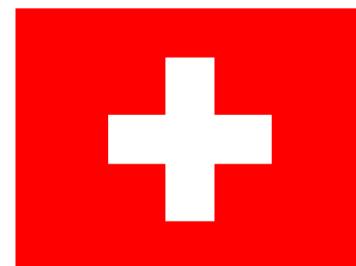
π

π 

Leonhard Euler

(1707 – 1783)

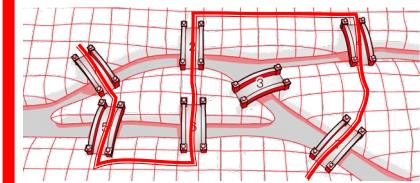
Nationality
Swiss



Known for

Being the most prolific mathematician of all time, writing 500 books

Solving the Seven Bridges of Königsberg

 π



Maria Gaetana Agnesi

(1718 – 1799)

Nationality
Italian

Known for

Writing the first calculus textbook and being the world's first female maths professor

Studying the 'Witch of Agnesi', a curve that models the shape of hills

π



María Andresa Casamayor (1720 – 1759)

Nationality
Spanish



Known for

Publishing *Tyrcinio aritmético*, a book teaching real-world maths, aged only 17

Writing under the male pseudonym Casandro Mamés de la Marca y Aranoa, an anagram of her real name

π

π



Wang Zhenyi

(1768 – 1797)

Nationality
Chinese



Known for

Writing 12 books covering trigonometry, astronomy, poetry and sexism

Creating a model to explain lunar eclipses, using a lamp as the sun and a mirror as the moon

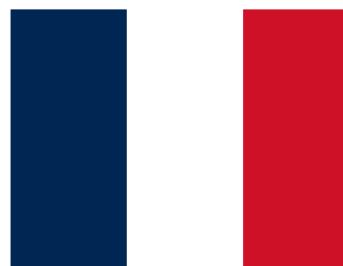
π



Sophie Germain

(1776 – 1831)

Nationality
French



Known for

Teaching herself maths
in secret, inspired by the
death of Archimedes

Discoveries about
elasticity, acoustics and
vibrations

Writing a partial proof of
Fermat's Last Theorem

π



Carl Friedrich Gauss

(1777 – 1855)

Nationality
German



Known for

Being the 'Prince of Mathematicians'

At age 7, adding the integers from 1 to 100 almost instantly

Constructing a heptadecagon

π



Mary Somerville

(1780 – 1872)

Nationality
Scottish

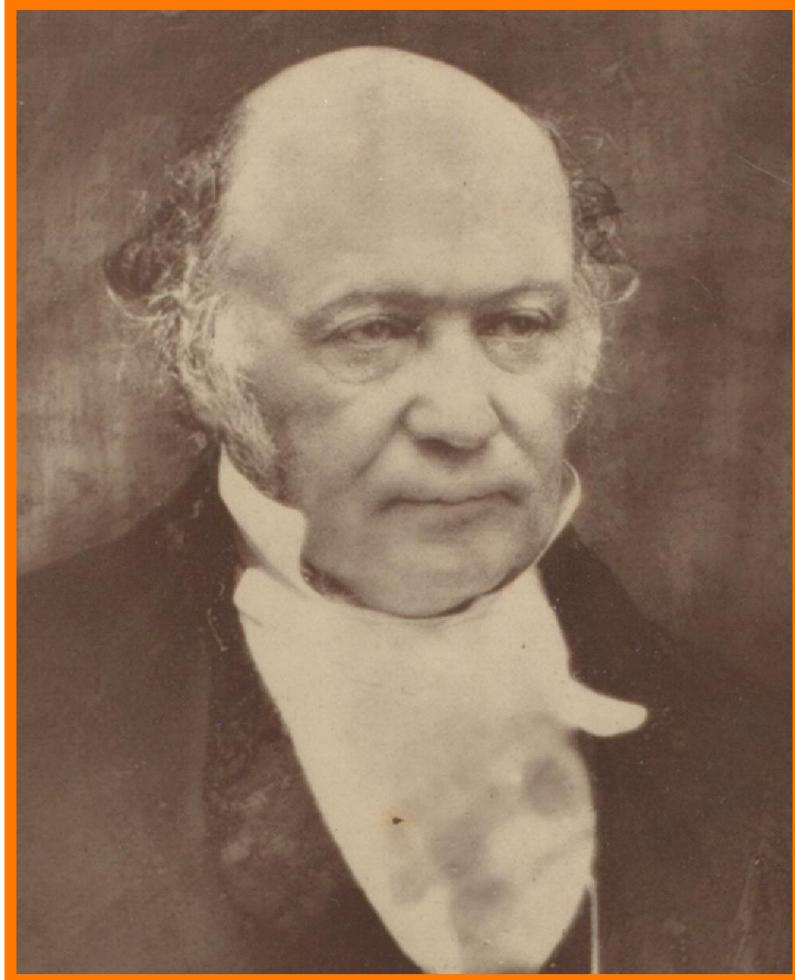


Known for

Publishing books on
maths, astronomy,
geography and botany

Inspiring the discovery
of Neptune

Being the first person
described in print as a
'scientist'

π 

William Rowan Hamilton

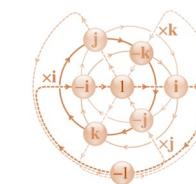
(1805 – 1865)

Nationality
Irish



Known for

Inventing quaternions, a number system extending beyond complex numbers used in quantum mechanics

 π



Ada Lovelace

(1815 – 1852)

Nationality
British



Known for

Being seen as the first computer programmer, working with Charles Babbage and his 'Analytical Engine'

Being the only legitimate child of poet Lord Byron



Florence Nightingale

(1820 – 1910)

Nationality
British



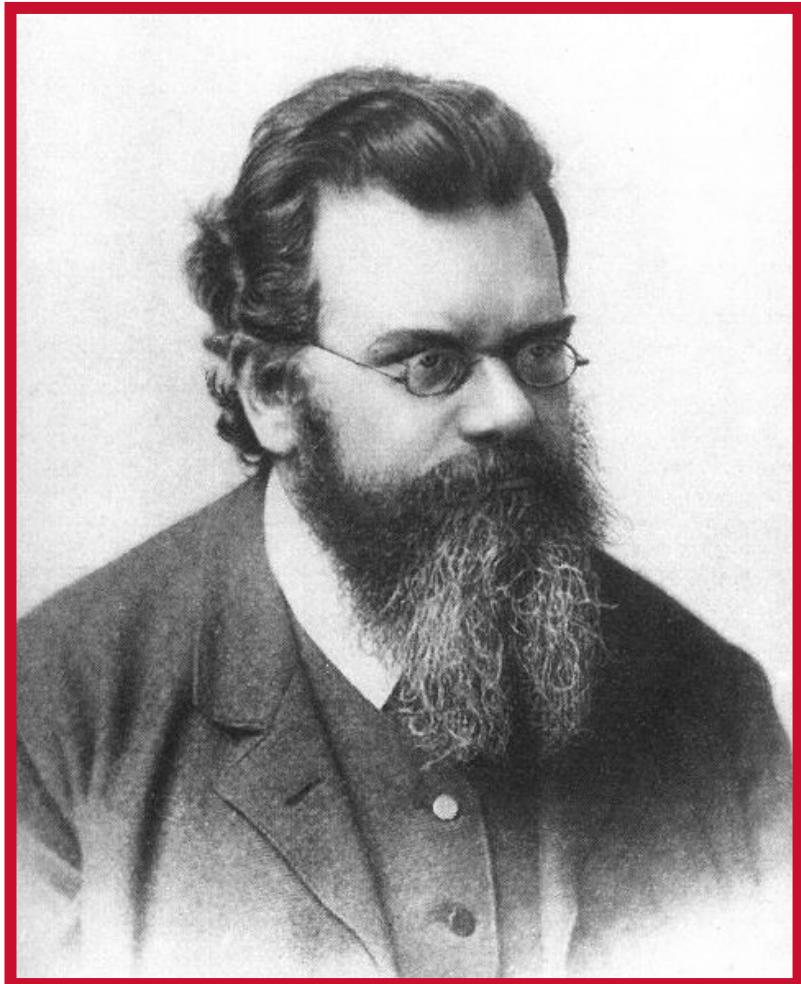
Known for

Being 'The Lady With the Lamp', founding modern nursing



Developing ways to graphically represent statistics, including pie charts and polar area diagrams

π



Ludwig Boltzmann

(1844 – 1906)

Nationality
Austrian

Known for

Developing statistical mechanics, the use of statistics and probability to understand how scientific results

Explaining the second law of thermodynamics, disproving perpetual motion devices

π



Sofia Kovalevskaya

(1850 – 1891)

Nationality
Russian



Known for

Studying partial differential equations and the shape of Saturn's rings

Being the first female mathematician to be awarded a PhD and the first woman to be a mathematics professor

π 

Bernhard Riemann

(1862 – 1943)

Nationality
German



Known for

The Riemann Hypothesis
The greatest unsolved
problem in mathematics

Giving a rigorous
formalisation of integral
calculus and laying the
foundations for
quantum mechanics

 π

π 

Emmy Noether

(1882 – 1935)

Nationality
German

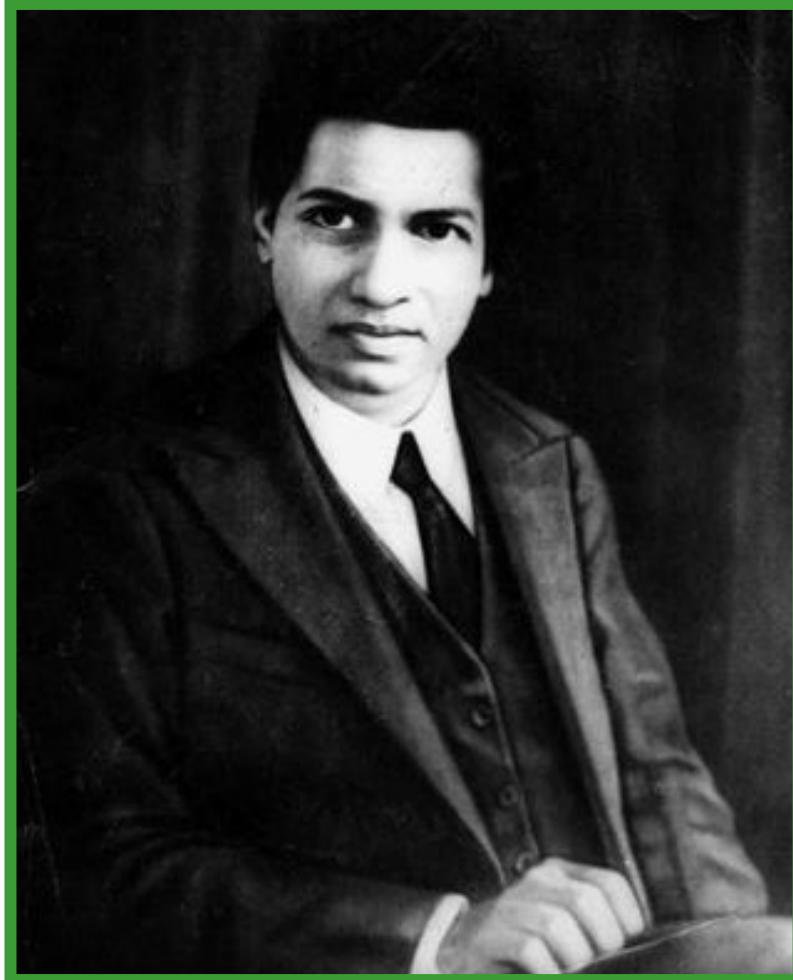


Known for

Noether's Theorem
connecting symmetry
and scientific laws such
as energy conservation

Being banned from
teaching by the Nazi
party due to being
Jewish

 π

π 

Srinivasa Ramanujan

(1887 – 1920)

Nationality
Indian



Known for

Teaching himself maths and going on to discover 3900 new results, identities and equations

Working with G. H. Hardy, as shown in the film *The Man Who Knew Infinity*

 π

π 

Júlio César de Mello e Souza

(1895 – 1974)

Nationality
Brazilian

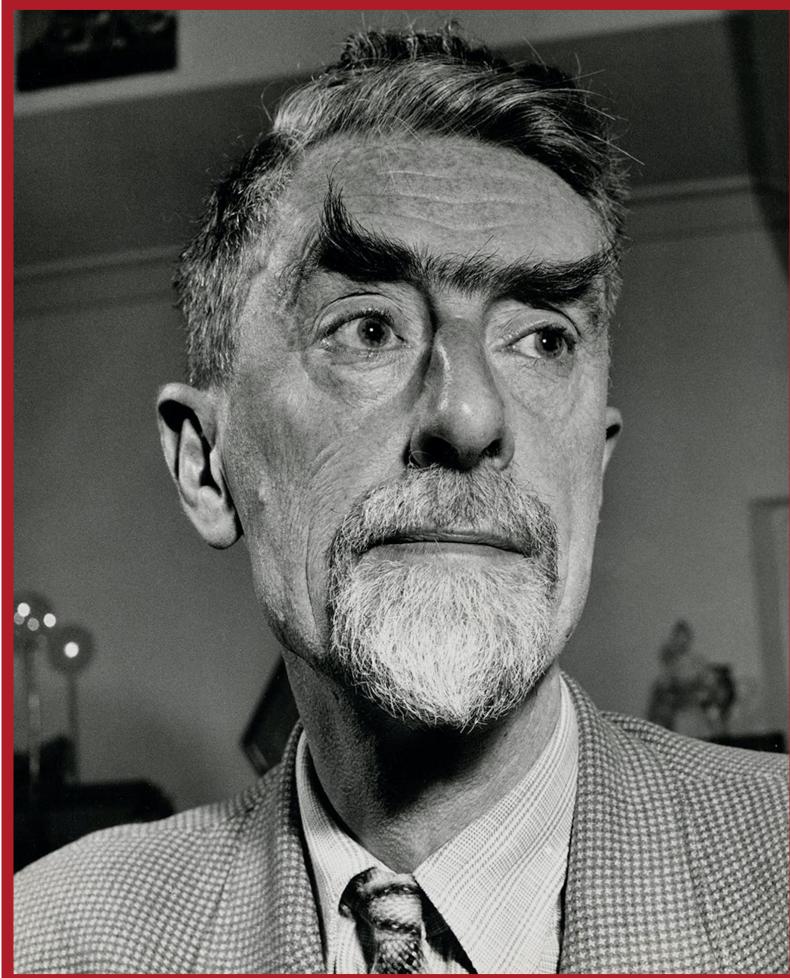


Known for

Writing books of maths puzzles, word problems and tales, selling over two million copies worldwide

Promoting the teaching of mathematics through games and real-world connections

 π

π 

M. C. Escher

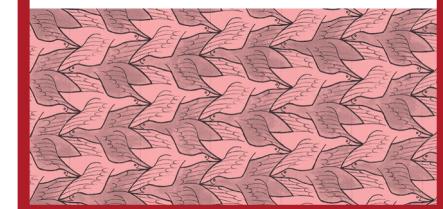
(1898 – 1972)

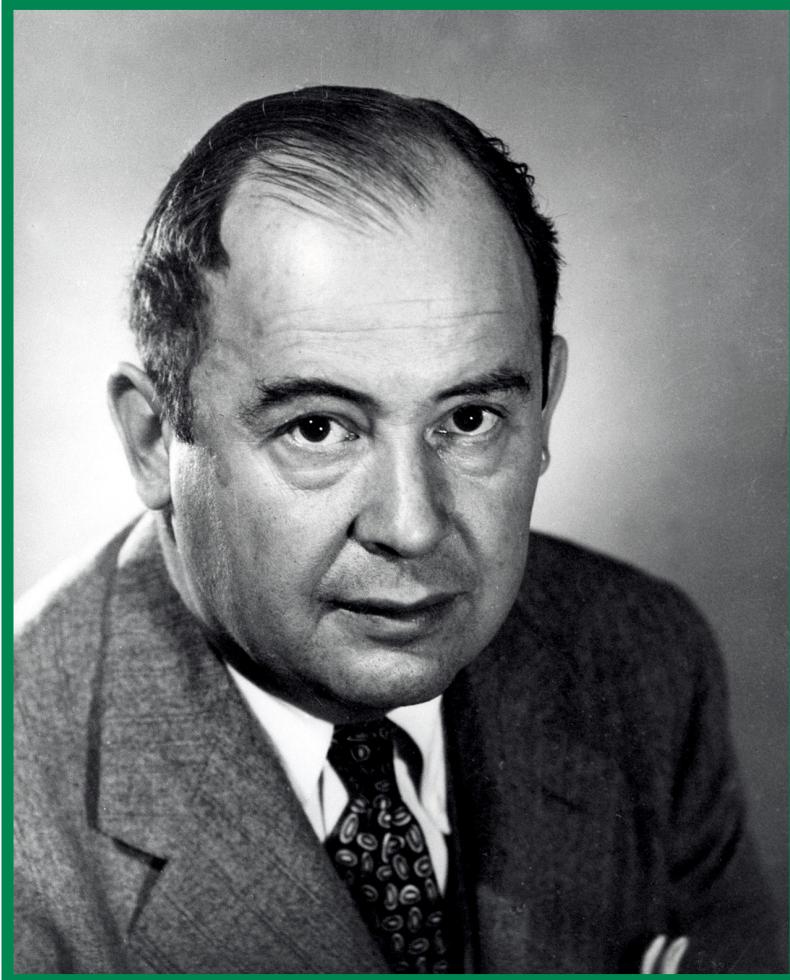
Nationality
Dutch



Known for

Creating artworks
inspired by mathematics
involving symmetries,
hyperbolic geometry,
and impossible objects

 π



John von Neumann

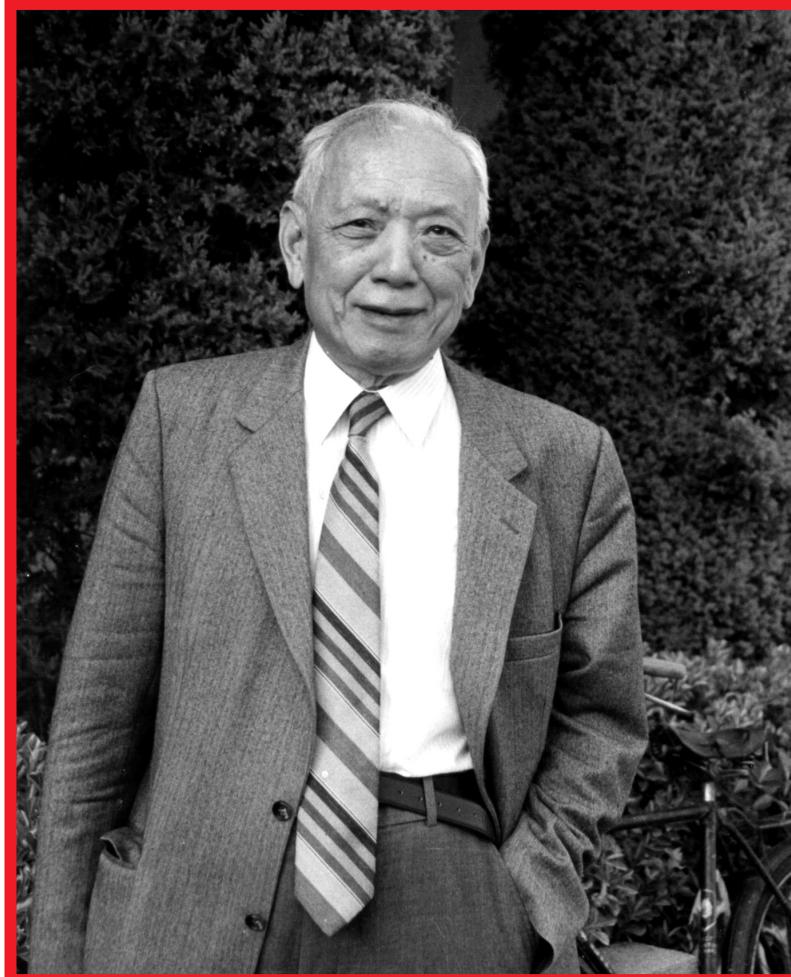
(1903 – 1957)

Nationality
Hungarian

Known for

Founding the field of Game Theory, the study of strategies and human behaviour

Working on the Manhattan Project during WW2, developing mathematical models of nuclear weapons

π 

Shiing-Shen Chern

(1911 – 2004)

Nationality
Chinese

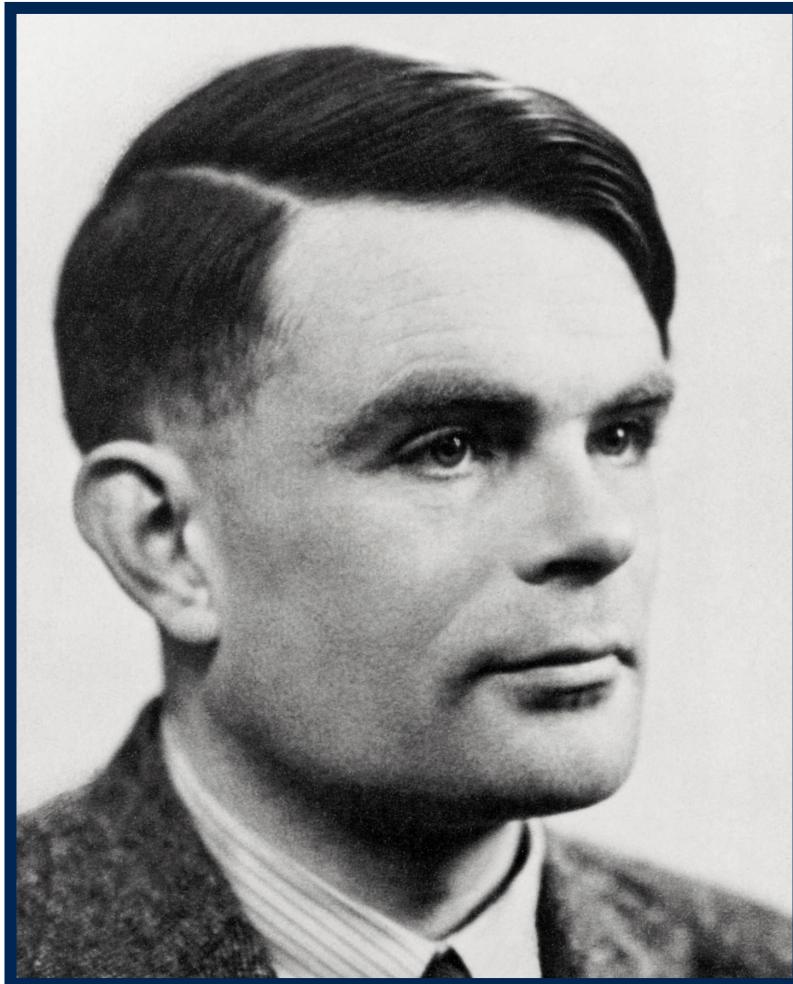


Known for

Being the 'father of modern differential geometry', the study of smooth spaces

Developing ideas in topology knot theory used in theoretical physics for string theory

 π

π 

Alan Turing

(1912 – 1954)

Nationality
British



Known for

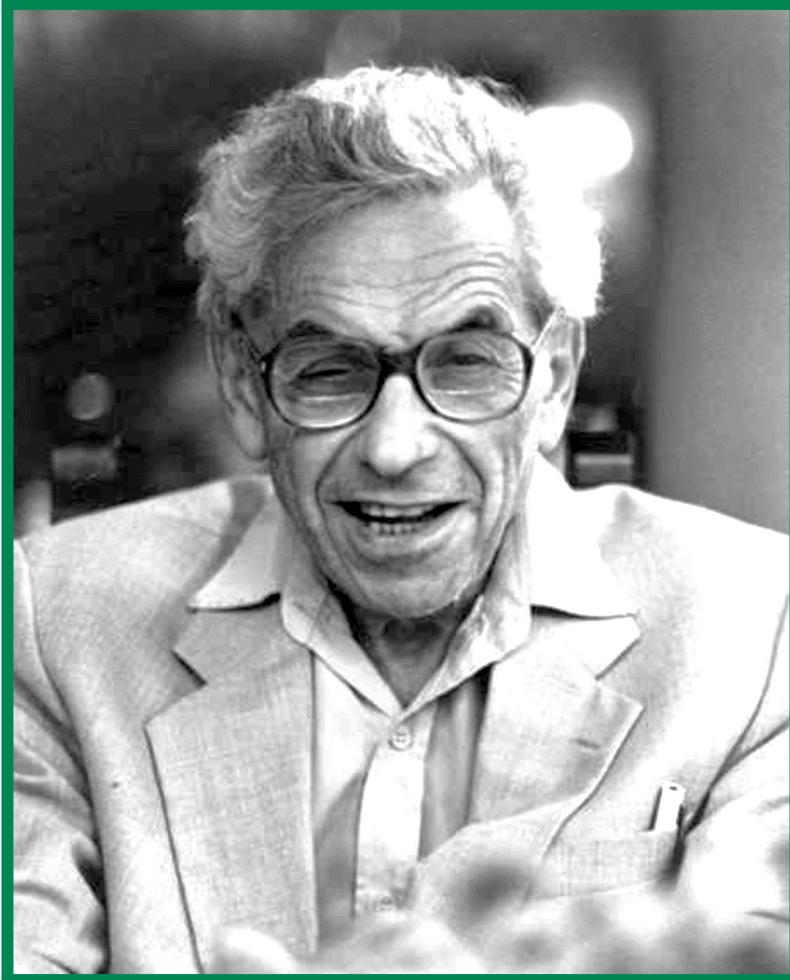
Pioneering computer science and working on the earliest computers

Cracking the Enigma code machine in WW2

Being persecuted by the state due to his sexuality

Being on the £50 note

 π



Paul Erdős

(1913 – 1996)

Nationality
Hungarian

Known for

Collaborating with over
500 mathematicians and
co-writing 1500 papers

Solving problems across
graph theory, number
theory, combinatorics,
analysis, probability and
other areas of maths

π 

Kunihiko Kodaira

(1915 – 1997)

Nationality
Japanese



Known for

Being the first Japanese mathematician to receive a Fields Medal, for his work in harmonic analysis, an area which helps understand music, tides and electricity

Aged 10, 'proving' that dogs can't count

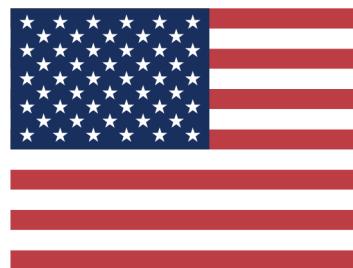
 π



Katherine Johnson

(1918 – 2020)

Nationality
American



Known for

Performing vital calculations of orbits that enabled NASA's first crewed spaceflights

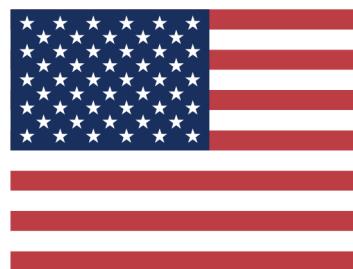
Overcoming racial discrimination and being given the Presidential Medal of Freedom for her contributions

π 

Abraham Nemeth

(1918 – 2013)

Nationality
American



Known for

Inventing Nemeth Braille, a way for maths and science to be written and accessed by blind mathematicians, scientists and engineers for decades to come

Teaching soldiers returning from WW2

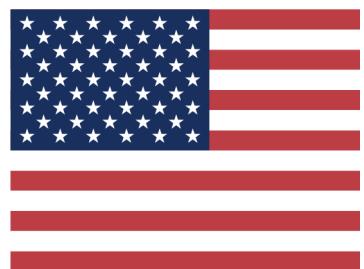
 π



Mary Jackson

(1921 – 2005)

Nationality
American



Known for

Studying the maths and physics of air flow for NASA aircraft

Having her story told in the film *Hidden Figures*, along with two other Black female NASA mathematicians

π 

Nina Virchenko

(1930 –)

Nationality
Ukrainian



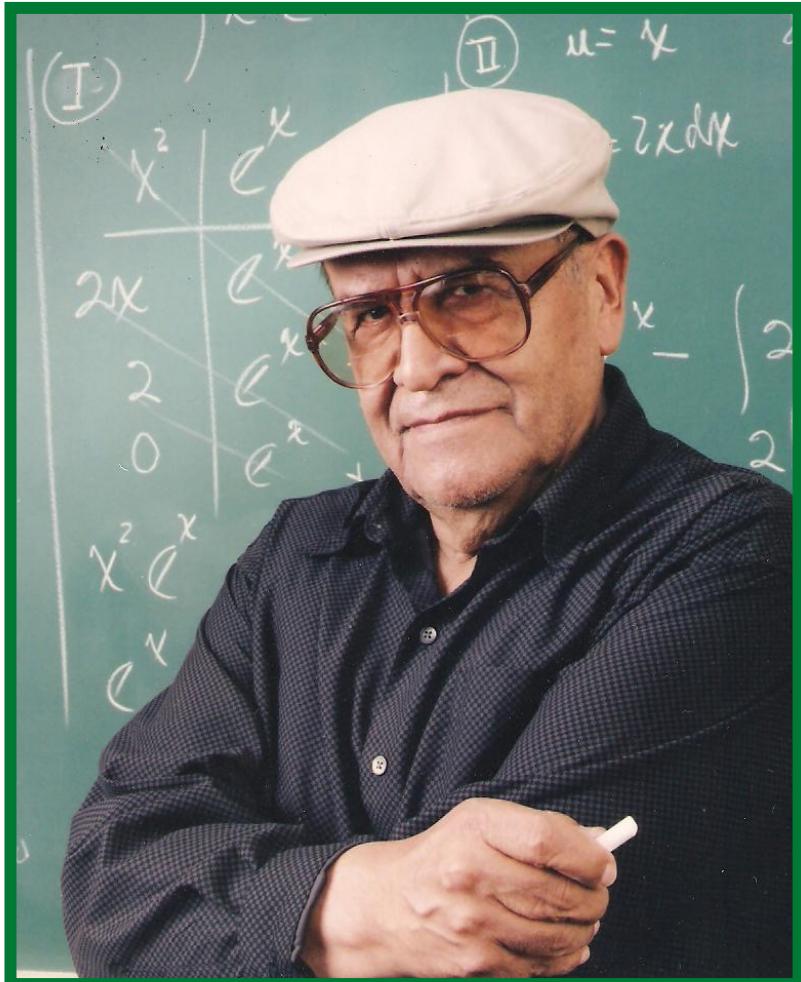
Known for

Authoring over 350 mathematical works,
including 20 books

Being imprisoned for six years in a Siberian gulag
for promoting Ukrainian independence from the
Soviet Union

 π

π



Jaime Escalante

(1930 – 2010)

Nationality
Bolivian

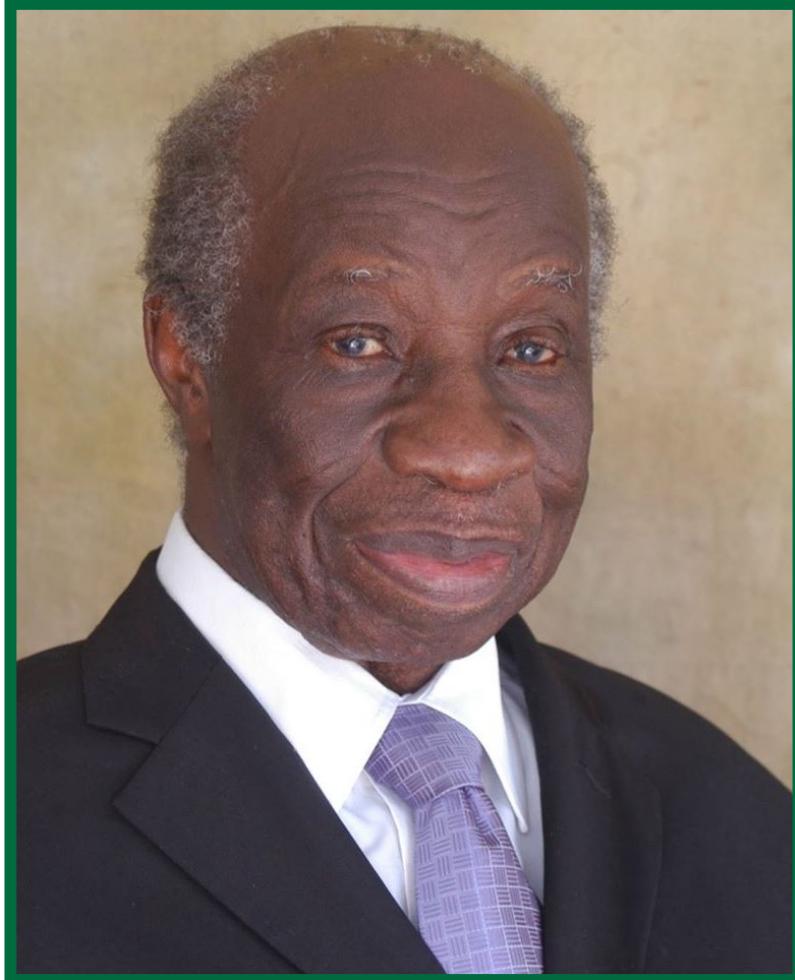


Known for

Teaching advanced mathematics to working-class students with such success that they were falsely accused of cheating

Having his story told in the film *Stand and Deliver*

π

π 

Francis Allotey

(1932 – 2017)

Nationality
Ghanaian



Known for

Developing techniques
for using X-rays to
analyse the electronic
structure of materials

Promoting
mathematics, physics
and computer education
at all levels throughout
Africa.

 π



Grace Alele-Williams

(1932 – 2022)

Nationality
Nigerian



Known for

Writing books and
training teachers in
mathematics

Being the first Nigerian
woman to be awarded a
doctorate and the first
female Vice Chancellor
of a Nigerian University

π 

Hoàng Xuân Sính

(1933 –)

Nationality
Vietnamese



Known for
Working with mathematician Grothendieck in studying group theory, the understanding of abstract symmetries and relationships

Founding Vietnam's first private university

 π

π 

Alexandra Bellow

(1935 –)

Nationality
Romanian



Known for

Studying probability and ergodic theory, the mathematics of how random dynamic systems evolve over time, such as calculating whether a gambler will eventually 'go bust'

 π

π



Argelia Velez-Rodriguez **(1936 –)**

Nationality
Cuban

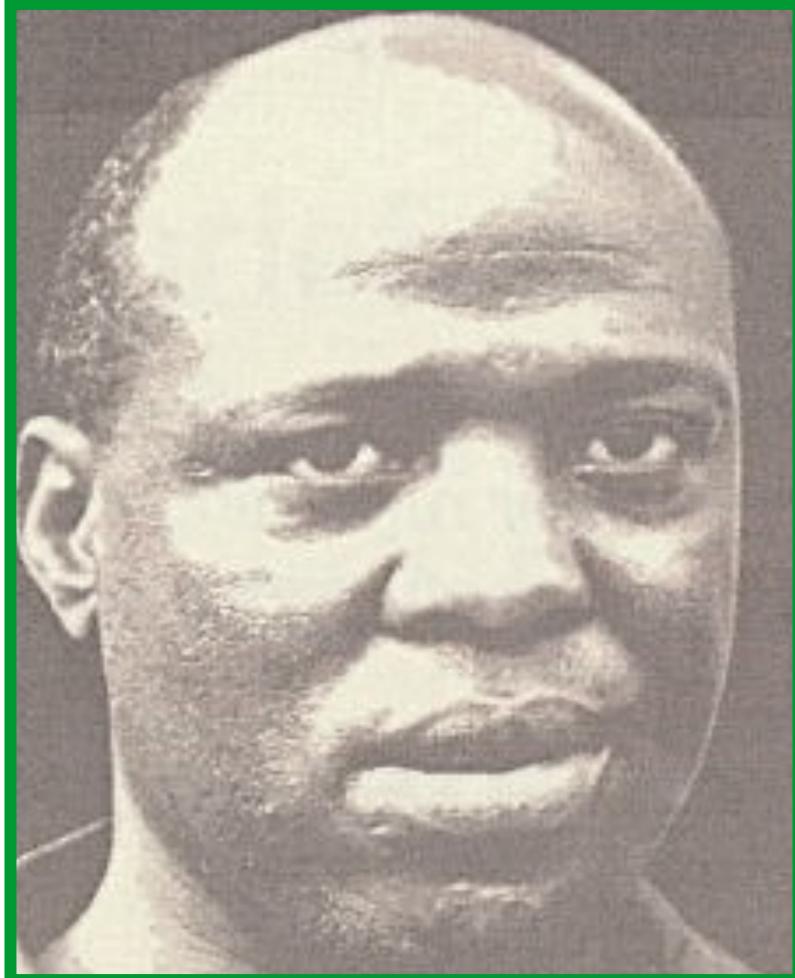


Known for

Studying differential equations describing the orbits of planets and moons

Teaching maths across different American universities, creating strategies for teaching disadvantaged students

π



Andrew Masondo

(1936 –)

Nationality
South African



Known for

Being imprisoned for thirteen years alongside Nelson Mandela for opposing Apartheid in South Africa

Completing a degree in Mathematical Statistics while imprisoned on Robben Island

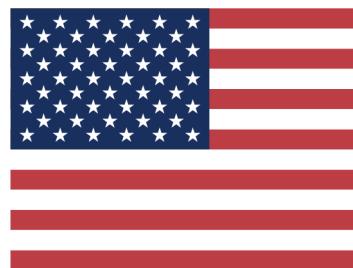
π



Lynn Conway

(1938 –)

Nationality
American



Known for

Inventing methods that simplified the design and manufacture of computer microchips

Promoting transgender rights, having been fired by IBM after transitioning in 1968

π

π 

Jean Springer

(1939 –)

Nationality
Jamaican



Known for

Teaching mathematics
and science to school
and university students
in Jamaica and Canada

Living by the motto,
“Age quod agis”
(Do whatever you do well)

 π

π



Graciela Chichilnisky

(1944 –)

Nationality
Argentinian



Known for

Working as a mathematical economist to develop the carbon credit market system used in the Kyoto Protocol international treaty to tackle climate change

π

π



Joséphine Guidy Wandja

(1945 –)

Nationality
Ivorian



Known for

Studying the economic history of the French franc currency in Africa

Writing a comic book called *Yao crack en maths*, with sketches about the challenges of learning maths

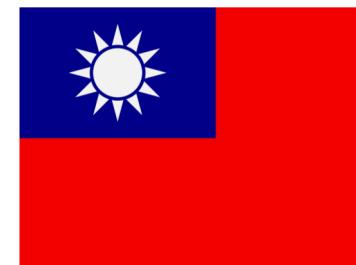
π

π 

Fan Chung

(1949 –)

Nationality
Taiwanese

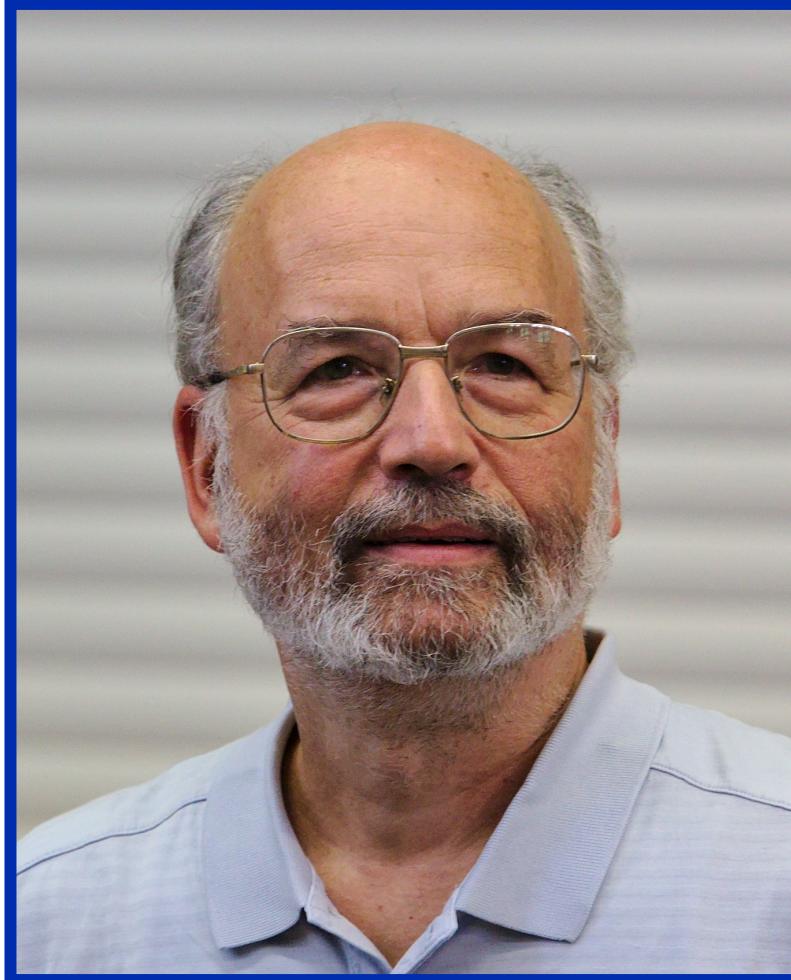


Known for

Contributing to the field of network science, the study of large information networks like the internet

Collaborating on graph theory with Paul Erdős and her husband Ron Graham

 π

π 

Adi Shamir

(1952 –)

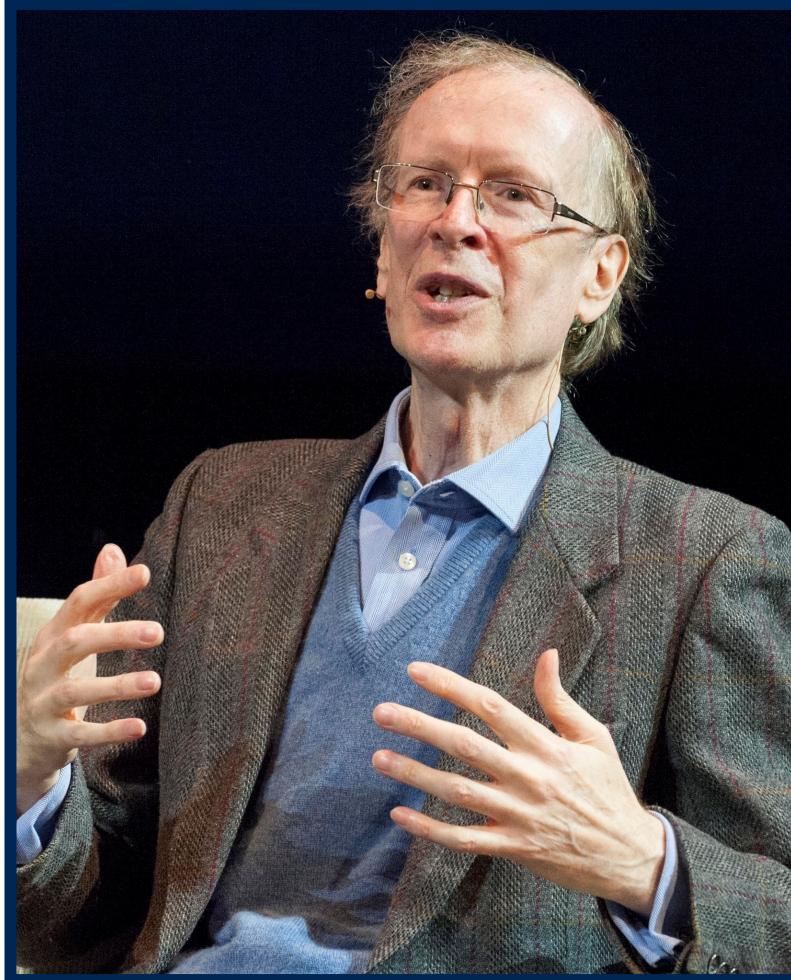
Nationality
Israeli



Known for

Being a co-inventor, along with Ron Rivest and Len Adleman, of the RSA cryptography system which uses prime numbers to make transactions and communications over the internet secure

 π

π 

Andrew Wiles

(1953 –)

Nationality
British



Known for

Proving Fermat's Last Theorem, a problem that stood unsolved for 358 years, considered by many to be the greatest mathematical achievement of the 20th century

 π

π 

Ingrid Daubechies

(1954 –)

Nationality
Belgian



Known for

Developing the maths behind image compression, allowing photos and videos to be sent over the internet

Being the first female president of the International Mathematical Union

 π



Daina Taimiņa

(1954 –)

Nationality
Latvian

Known for

Representing hyperbolic planes through crochet when teaching geometry, to much media attention

Writing three geometry textbooks, featuring her crocheted models

π 

Nkechi Agwu

(1962 –)

Nationality
Nigerian



Known for

Being an expert in ethnomathematics, the study of the relationship between mathematics and culture

Growing up in refugee camps in Equatorial Guinea, Liberia and Sierra Leone

 π

π 

Arlie Petters

(1964 –)

Nationality
Belizean

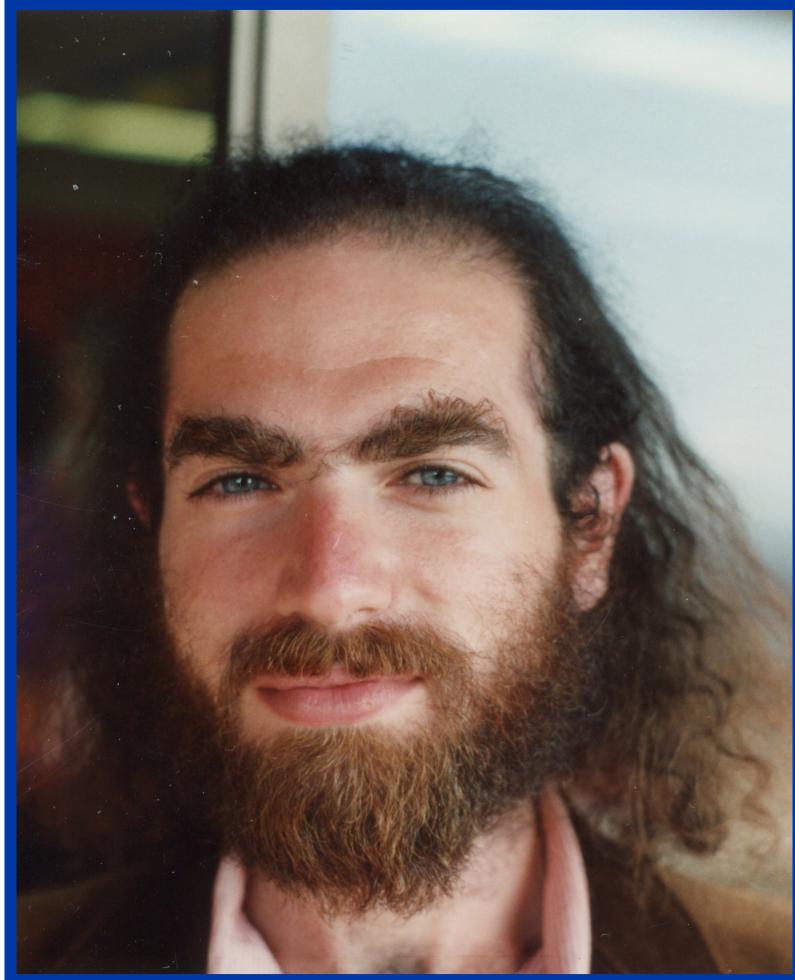


Known for

Studying the maths behind how gravity can bend light through gravitational lensing

Being a leading figure in studying mathematical astronomy, the use of advanced maths to understand space

 π



Grigori Perelman

(1966 –)

Nationality
Russian



Known for

Proving the Poincaré conjecture, one of the seven Clay Millennium prize problems, but going on to reject both the 1 million dollar prize fund and a Fields medal

π 

Ron Buckmire

(1968 –)

Nationality
Grenadian



Known for

Work in aerodynamics,
the study of objects
move through the air

Advocating for the
wider participation of
LGBTQIA+ people and
racial minorities in
mathematics

 π



A. W. Peet

(1968 –)

Nationality

New Zealander



Known for

Researching string theory, the scientific theory that the universe is made up of vibrating one-dimensional strings

Advocating for LGBTQIA+ and disabled communities

π



Katarzyna Lubnauer

(1969 –)

Nationality
Polish

Known for

Researching quantum probability, a branch of maths connecting quantum mechanics and probability

Leading the Polish political party *Nowoczesna*

π



Mariel Vázquez

(1971 –)

Nationality
Mexican



Known for

Studying the topology of DNA, using computer simulations and mathematics to understand how DNA is packed into our cells

Being featured in popular Youtube videos about the shape of DNA

π 

Ngô Bảo Châu

(1972 –)

Nationality
Vietnamese

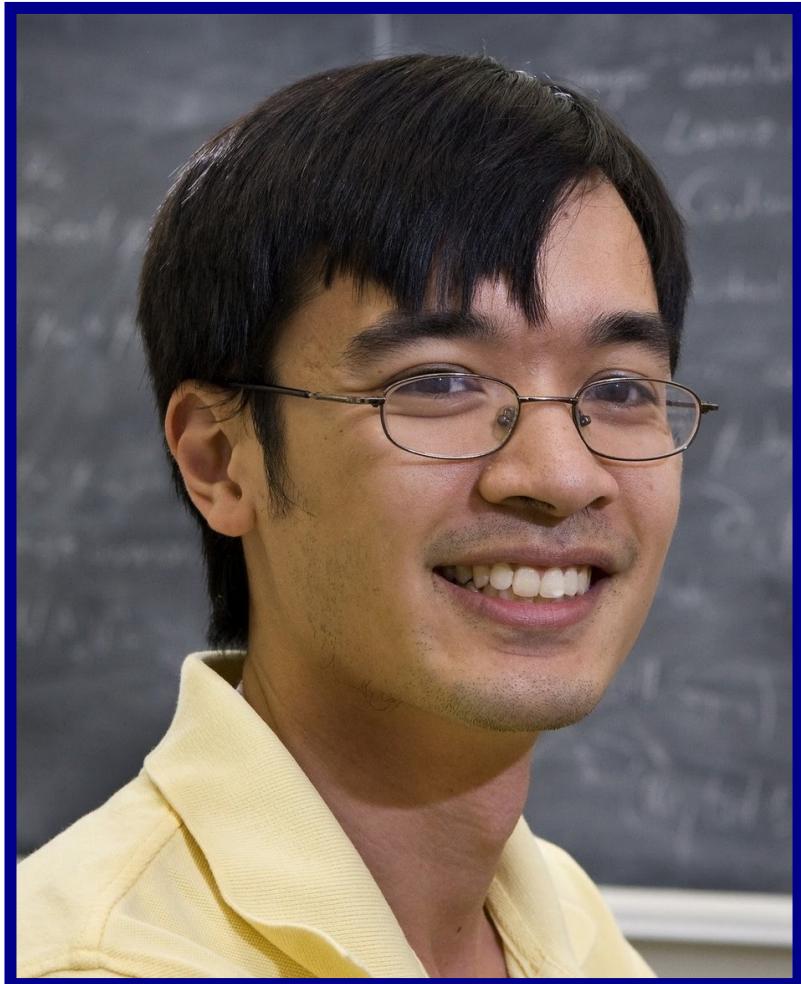


Known for

Proving the
Fundamental Lemma, a
vital bridge connecting
number theory and
geometry

Being awarded the
Fields medal in 2010, the
first Vietnamese
mathematician to do so

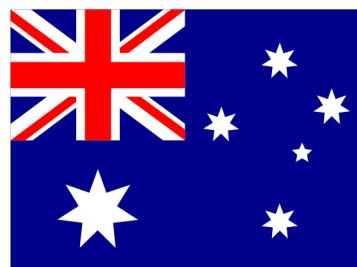
 π

π 

Terrance Tao

(1975 –)

Nationality
Australian



Known for

Being the 'Mozart of mathematics', with significant contributions across all of mathematics

Receiving the Fields medal in 2006, the first Australian to do so

 π

π 

Maryam Mirzakhani

(1977 – 2017)

Nationality
Iranian

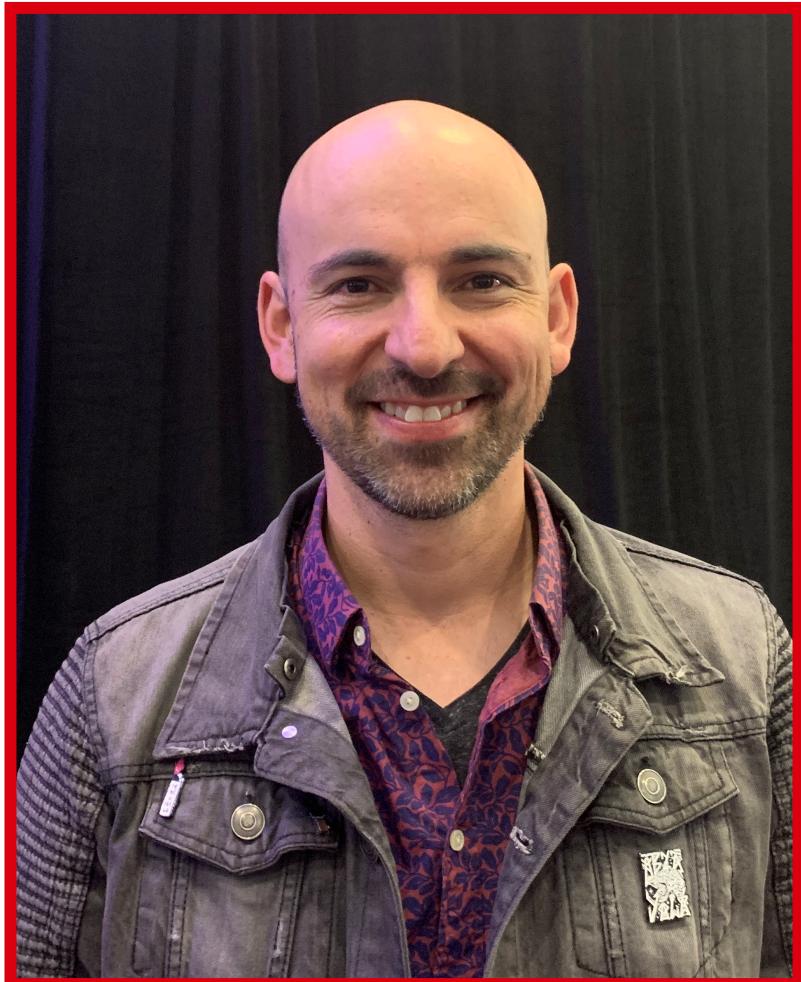


Known for

Solving problems in
hyperbolic geometry,
the study of surfaces
shaped like Pringles

Being the first woman
to receive the Fields
medal

 π

π 

Federico Ardila

(1977 –)

Nationality
Colombian



Known for

Researching and
teaching combinatorics,
the study of counting
arrangements and
combinations

Promoting diversity and
inclusion within
mathematics

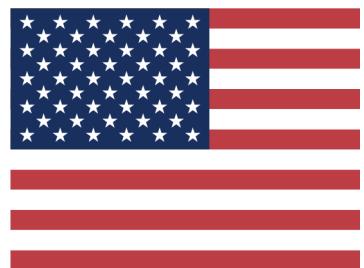
 π

π 

Autumn Kent

(1978 –)

Nationality
American



Known for

Discoveries in topology and knot theory, a field with applications in theoretical physics and understanding DNA

Promoting trans rights and furthering LGBTQIA+ equality in STEM

 π

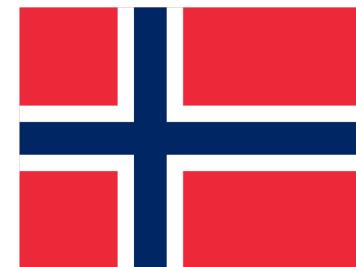
π 

Inga Berre

(1978 –)

Nationality

Norwegian



Known for

Applying numerical methods to the partial differential equations that describe the geothermal systems below the earth's crust, helping develop technologies to extract geothermal energy

 π

π 

Artur Avila

(1979 –)

Nationality
Brazilian



Known for
Making discoveries in dynamical systems, studying the chaotic behaviour and solving the '*ten martinis*' problem

Being the first Latin-American to receive the Fields medal

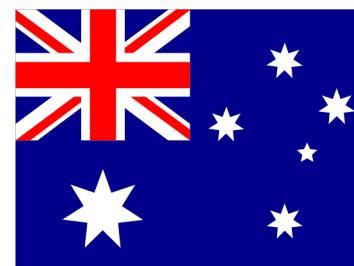
 π

π 

Akshay Venkatesh

(1975 –)

Nationality
Australian



Known for

Completing a maths degree aged only 16

Winning the Fields medal for his 'profound contributions to an exceptionally broad range of subjects in mathematics'

 π

π 

Sarah Flannery

(1982 –)

Nationality
Irish



Known for

Being named the EU Young Scientist of the Year aged 16 for developing a fast and secure encryption algorithm, as described in her book *In Code: A Mathematical Journey*

 π

π 

June Huh

(1983 –)

Nationality
Korean

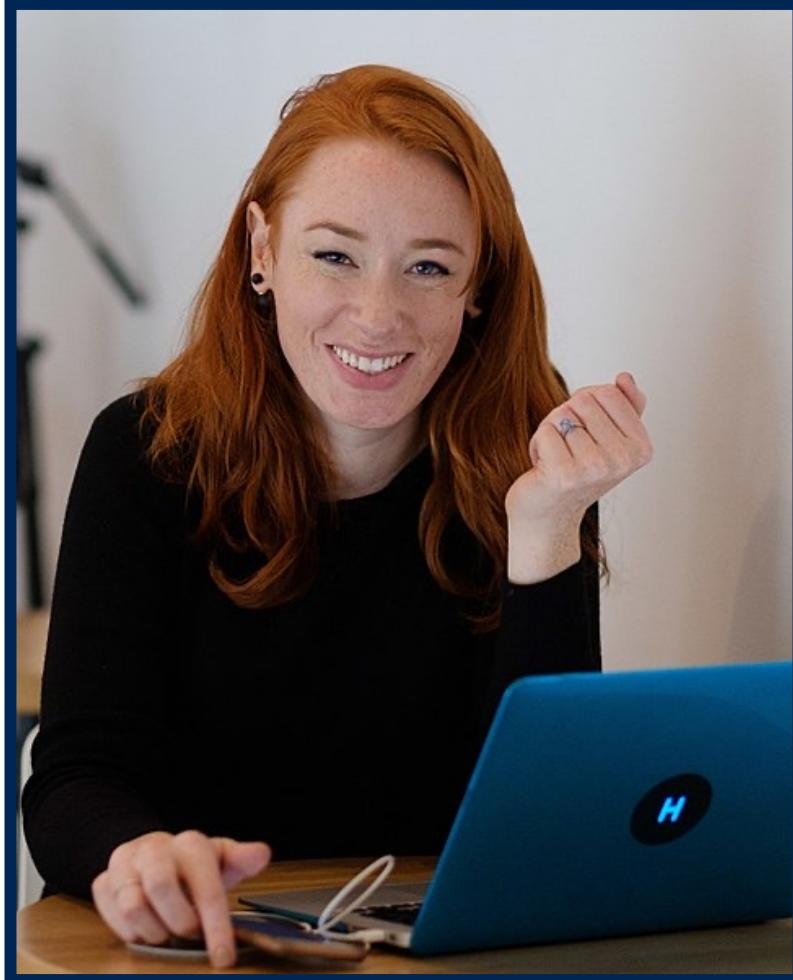


Known for

Proving Read's conjecture, a problem that had been unsolved for over 40 years in the field of graph theory, the study of networks

Being awarded the Fields medal in 2022, the first Korean to do so

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Hannah Fry

(1984 –)

Nationality
British



Known for

Studying the maths
behind human
interactions, including
how pandemics spread

Presenting television
shows for the BBC and
writing books about
real-world mathematics

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Maryna Viazovska

(1984 –)

Nationality
Ukrainian



Known for

Solving the problem of how to pack spheres as efficiently as possible, but in 8 and 24 dimensions

Being awarded the Fields medal in 2022, the second woman to do so

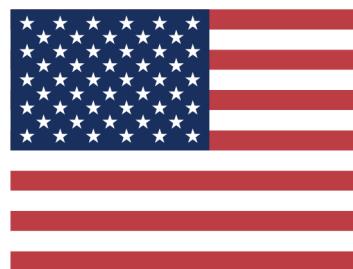
 π

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Vi Hart

(1988 –)

Nationality
American



Known for

Making videos on
Youtube with over 100
million views teaching
maths through doodles,
music and craft

Researching virtual
reality and the US
response to the covid
pandemic

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Diarra Bousso Gueye

(1989 –)

Nationality
Senegalese



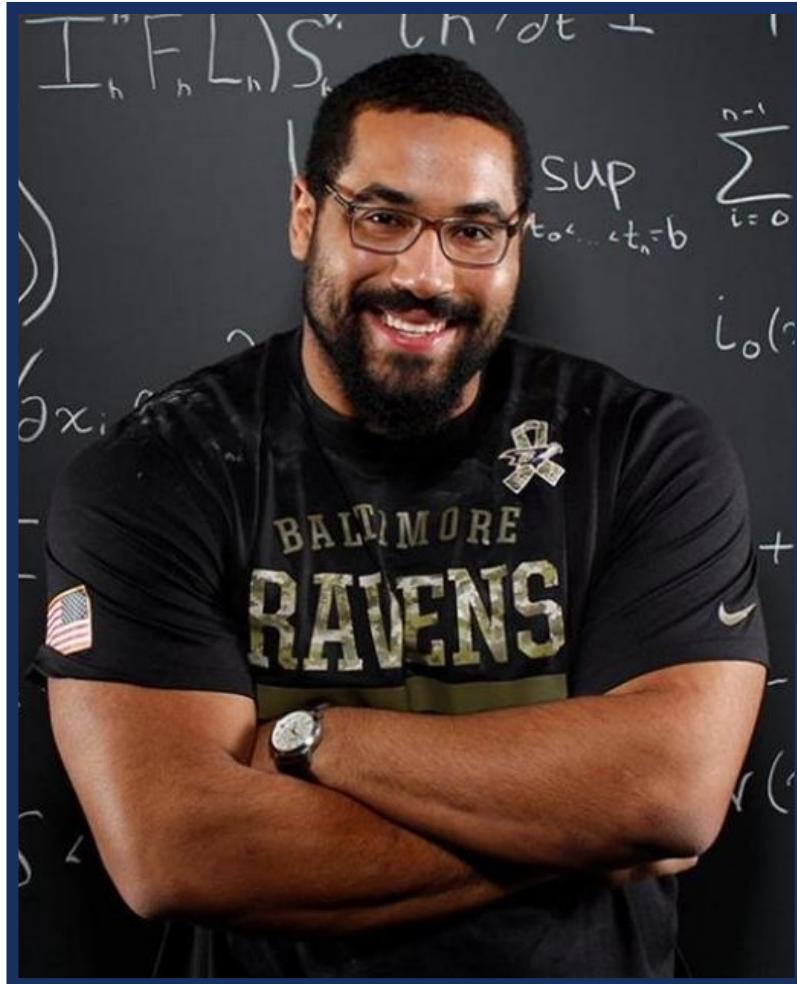
Known for

Using mathematical equations and programming to design textiles

Building the global fashion brand *Diarrablu*, all while being a high school maths teacher

 π

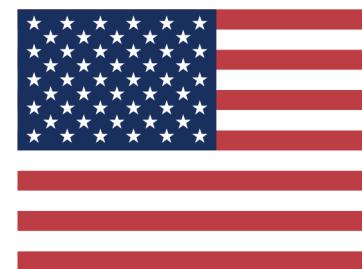
π



John Urschel

(1991 –)

Nationality
American



Known for

Studying mathematics while being a professional American Football player, playing three seasons in the NFL

Writing the bestselling book, *Mind and Matter: A Life in Math and Football*

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Rediet Abebe

(1991 –)

Nationality
Ethiopian



Known for

Using algorithms and artificial intelligence to tackle discrimination and inequalities, and to improve opportunities for people from disadvantaged communities

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Kyne Santos

(1998 –)

Nationality
Canadian

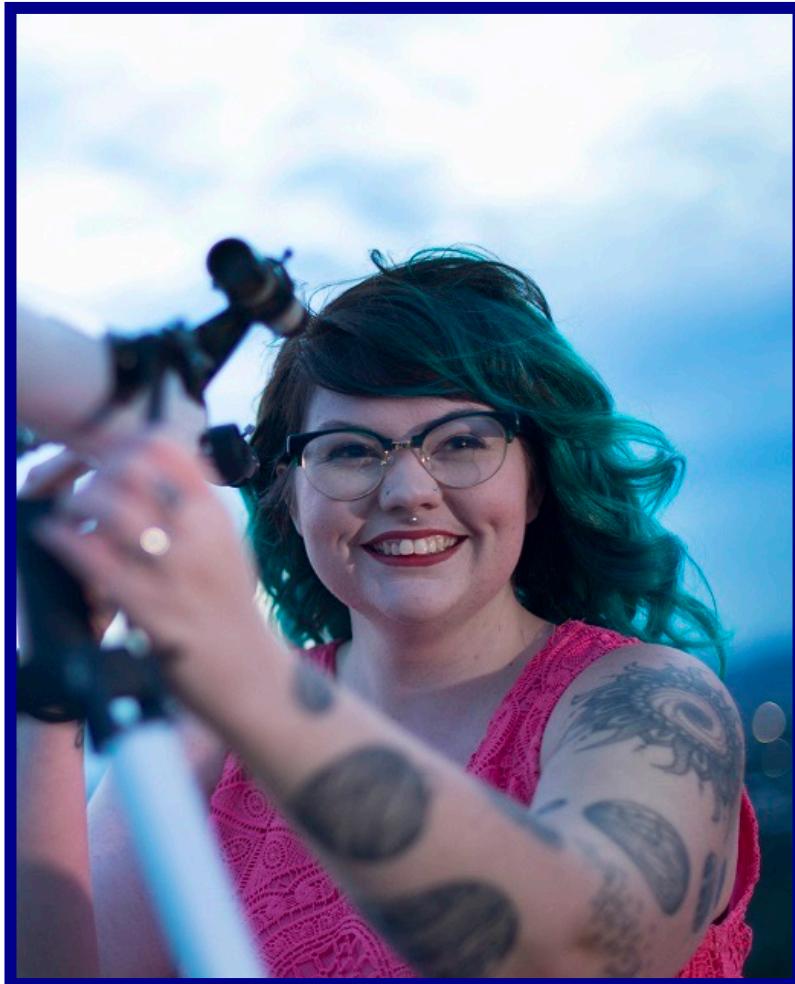


Known for

Teaching maths to more than 1 million followers on TikTok, while dressed in drag

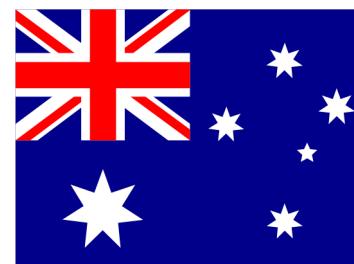
Making videos about maths in the news, personal finance, and mathematical riddles

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Karlie Noon

Nationality
Australian



Known for

Researching and communicating the astronomic knowledge of Indigenous Australians, such as the use of moon halos to predict storms and weather patterns

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Hasibun Naher

Nationality
Bangladeshi



Known for

Applying numerical methods and differential equations to be able to simulate and predict natural disasters such as earthquakes, storm surges and tsunamis

π 

Lucy Campbell

Nationality
Barbadian



Known for

Using fluid dynamics to mathematically model the earth's oceans and atmosphere

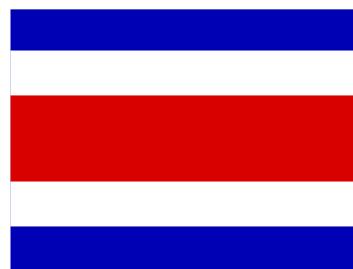
Developing methods for tracing the sources of greenhouse gases, helping tackle climate change

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Sunčica Čanić

Nationality
Croatian



Known for

Making mathematical models of the human cardiovascular system, used to design stents and develop alternatives to open-heart surgery

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Freya Holmér

Nationality
Swedish



Known for

Making Youtube videos teaching the maths behind video game development and graphics, with millions of views

Creating animations explaining different mathematical ideas

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