

Challenge no. 1 in eTwinning project 10 math challenges, 2020/2021

2nd part

$$x^n + y^n = z^n$$

Mathematical:

-Pierre de Fermat

Was born on August 17, 1601

Died on January 12, 1665

The first letter of my surname, Feijão, coincides with the first letter of the mathematician's surname, Fermat.

The French mathematician, Fermat, contributed to the study of the average rate and instantaneous rate of change of a function at a point and also to the study of derivatives and their applications. Pierre explained how to construct a line tangent to a curve and it had great influence on the development of algebra. He also contributed to the concept of a derivative with the development of analytical geometry.

Student:

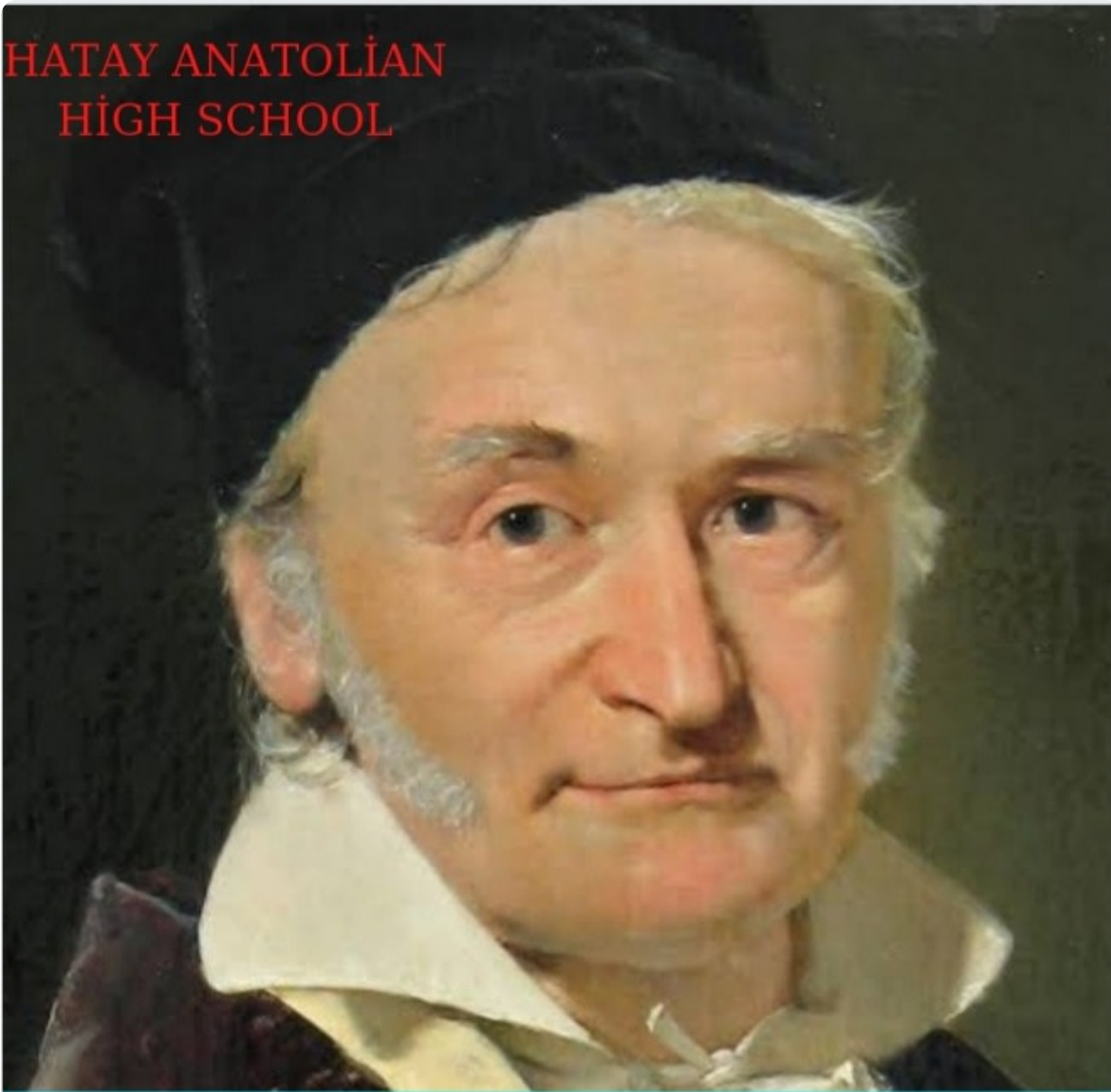
-Vânia Feijão



Vânia/Portugal-Pombal

Pierre de Fermat

HATAY ANATOLIAN
HIGH SCHOOL



Gauss remained for the rest of his life at the University of Göttingen, where he became a professor of astronomy in 1807. He is interested in literature in his last years. Gauss died in Göttingen on February 23, 1855, at the age of 78. His brain is preserved for research and is still preserved in formalin at the University of Göttingen Medical School today.

+ Masatoshi Gündüz Ikeda

**Turkish mathematician of
Japanese ancestry, known for his
contributions to the field of
algebraic number theory.**

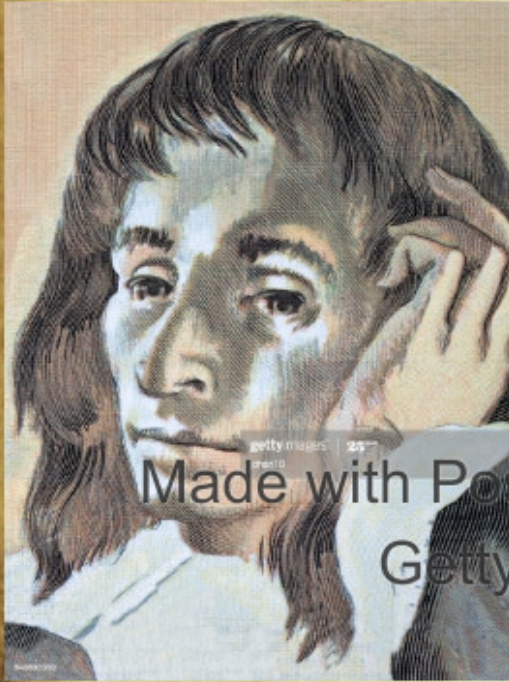


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Irma Bico, Srednja ekonomska škola Sarajevo

Irma, B&H

PASCAL



In the field of mathematics, he contributed to the foundations of the theory of probability and partly differential calculus, he left work on geometry, theoretical arithmetic and algebra, discovered the method of calculating the Newton coefficient (Pascal's triangle).



Gaspard Monge

- His name is among the 72 names of scientists on the Eiffel Tower.
- Is considered the founder of descriptive geometry
- During the French Revolution he also worked as a politician, from 1792 he was the Minister of the Navy.

THE MOST TALENTED WESTERN
MATHEMATICIAN OF THE MIDDLE AGES

LEONARDO PISANO FIBONACCI



ABİDİN MORBEL /DERBENT, KONYA

ALİ NESİN



ALİ NESİN'S POPULAR MATHEMATICS BOOKS SUCH AS MATHEMATICS AND HORROR, MATHEMATICS AND NATURE, MATHEMATICS AND THE INFINITE, MATHEMATICS AND PLAY, CAMELS AND DONKEYS, THE MONSTER OF MATHEMATICS AND MATHEMATICS AND TRUTH, AS WELL AS SEMI-ACADEMIC MATHEMATICS BOOKS SUCH AS PROPOSITIONAL LOGIC, COUNTING AND INTUITIVE SETS THEORY, AND THERE ARE ANALYSIS BOOKS PUBLISHED IN FIRST, SECOND AND FOURTH VOLUMES. IN ADDITION TO THESE, HE HAS SCIENTIFIC ARTICLES PUBLISHED IN VARIOUS JOURNALS AND AN ENGLISH BOOK (GROUPS OF FINITE MORLEY RANK) HE WROTE WITH ALEXANDER BOROVİK, AND TRANSLATIONS OF HIS FATHER AZİZ NESİN IN OTTOMAN TURKISH.

ALİ NESİN

ABİDİN MORBEL DERBENT CPAL

MEHMET URAM / KONYA , DERBENT
ULUĞ BEY



ULUĞ BEY HAD A MADRASA AND AN OBSERVATORY BUILT IN SAMARKAND. KADIZADE RUMİ HEADED THIS MADRASA. HE CALLED ALL ENGINEERS, SCHOLARS AND MASTERS TO SAMARKAND FOR THE OBSERVATORY. HE BUILT A ROOM FOR HIMSELF IN THIS OBSERVATORY AND DECORATED ALL WALLS AND CEILINGS WITH VIEWS AND PICTURES OF CELESTIAL BODIES. HE SPARED NO EXPENSE FOR THE CONSTRUCTION AND OBSERVATION EQUIPMENT OF THE OBSERVATORY.

ULUG BEY

MEHMET URAM DERBENT CPAL

MUSTAFA BALCI/DERBENT,KONYA

MELİH ONUŞ



MELİH ONUŞ, TURKISH
MATHEMATICIAN, COMPUTER
ENGINEER AND SCIENTIST. BARTIN
UNIVERSITY FORMER FACULTY
MEMBER. IN 1998, THE
INTERNATIONAL MATHEMATICAL
OLYMPIAD BRONZE, HAS
REPRESENTED TURKEY IN 1999
WITH A SILVER MEDAL. HE DIED IN
THE COVID-19 EPIDEMIC THAT
AFFECTED THE WORLD IN 2020.

MELİH ONUŞ

MUSTAFA BALCI DERBENT CPAL



TUĞBA ÇAMDERE DERBENT /KONYA

CAHİT ARF

CAHİT ARF HAS BECOME WORLD FAMOUS FOR HIS STUDIES ON ALGEBRA. HIS STUDIES ON THE SOLUBILITY OF SYNTHETIC GEOMETRY PROBLEMS WITH THE HELP OF A RULER AND COMPASS, BESIDES THE STUDIES MENTIONED IN THE LITERATURE SUCH AS THE ARF INVARIANT AND ARF RINGS ON THE INVARIANTS THAT OCCUR IN THE CLASSIFICATION OF QUADRATIC FORMS OF OBJECTS, HAVE BROUGHT THE THEOREM CALLED "HASSE-ARF THEOREM" TO MATHEMATICS.

CAHİT ARF

TUGBA CAMDERE/DERBENT CPAL



EVEN TODAY, WHEN THE IMPORTANCE OF WOMEN IN SOCIETY AND SCIENCE IS NOT UNDERSTOOD, HYPATIA OF ALEXANDRIA, WHO LIVED 1600 YEARS AGO, WAS THE PHILOSOPHER, MATHEMATICIAN AND ASTRONOMER. HYPATIA, THE FIRST FEMALE MATHEMATICIAN, USED NATURE THROUGHOUT HER LIFE. HE TRIED TO EXPLAIN IT WITH LOGIC, MATHEMATICS AND EXPERIMENT. HYPATIA'S INVENTIONS WERE EFFECTIVE IN CLASSIFYING CELESTIAL BODIES, FINDING THE HYDROMETER, AND DETERMINING THE DENSITY OF LIQUIDS. IT IS KNOWN THAT HYPATIA, ONE OF THE MOST BEAUTIFUL WOMEN OF THE ERA, ALSO WROTE BOOKS ON EUCLID'S AND APOLLONIUS' CONICS.

$$\begin{aligned}
 & B \int_{-\infty}^{\infty} \frac{e^{-ax}}{x^2+3} dx \quad \int (x \pm a)^n \quad e=2,79 \quad A-C = \frac{A-C}{C} \\
 & +y^2=Z \quad \sum_{n=0}^{\infty} \frac{x^n}{n!} \quad \phi = \frac{\sum (x-m)^2}{n-1} \quad S = \int_1^{\infty} \frac{dt}{t^2} \\
 & e = \cos x + iy \quad y = \sin x \quad y = \frac{\Delta x}{\Delta z} \\
 & P = r^2 \pi \ln \left(\frac{a+\sqrt{a^2}}{x} \right) + C \quad \frac{\Delta x}{\Delta y} = \lim_{\Delta y \rightarrow 0} \frac{\Delta x+2}{\Delta y-1} \\
 & \Delta t = T - \frac{3a}{x} \quad 8x = 4 - 3y^2 \quad (x+a)^2 = x^2 + 2ax + a^2 \quad f_x = \\
 & (x-y)^2 = 2x^2 + 3x \quad (x+y)^2 = \left(\frac{y}{2}\right)^2 \quad X_{1/2} = \frac{b \pm (a-c)}{\sqrt{2a}} \\
 & f = \frac{\sqrt{x+a}}{x} \quad \sum_{i=0}^{n-1} x^i \quad \pi \approx 3,1415 \quad \tan(2a) = \frac{2 \tan(a)}{1 - \tan^2(a)} \\
 & P = \sum_{i=0}^{\infty} x^i \quad h = \tan \alpha \quad S_5 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} \quad \begin{matrix} \beta \\ c \\ a \end{matrix} \quad \begin{matrix} \alpha \\ c \\ a \end{matrix} \\
 & = (y-1)^2 \quad \sin \alpha = \frac{b}{c} \quad \begin{matrix} \alpha \\ \beta \\ \gamma \end{matrix} \quad \begin{matrix} a \\ b \\ c \end{matrix}
 \end{aligned}$$

HALİL KAYALAR DERBENT/KONYA

HYPATIA (370-415)

HYPATIA

HALİL KAYALAR-DERBENT ÇPAL



FIBONACCI

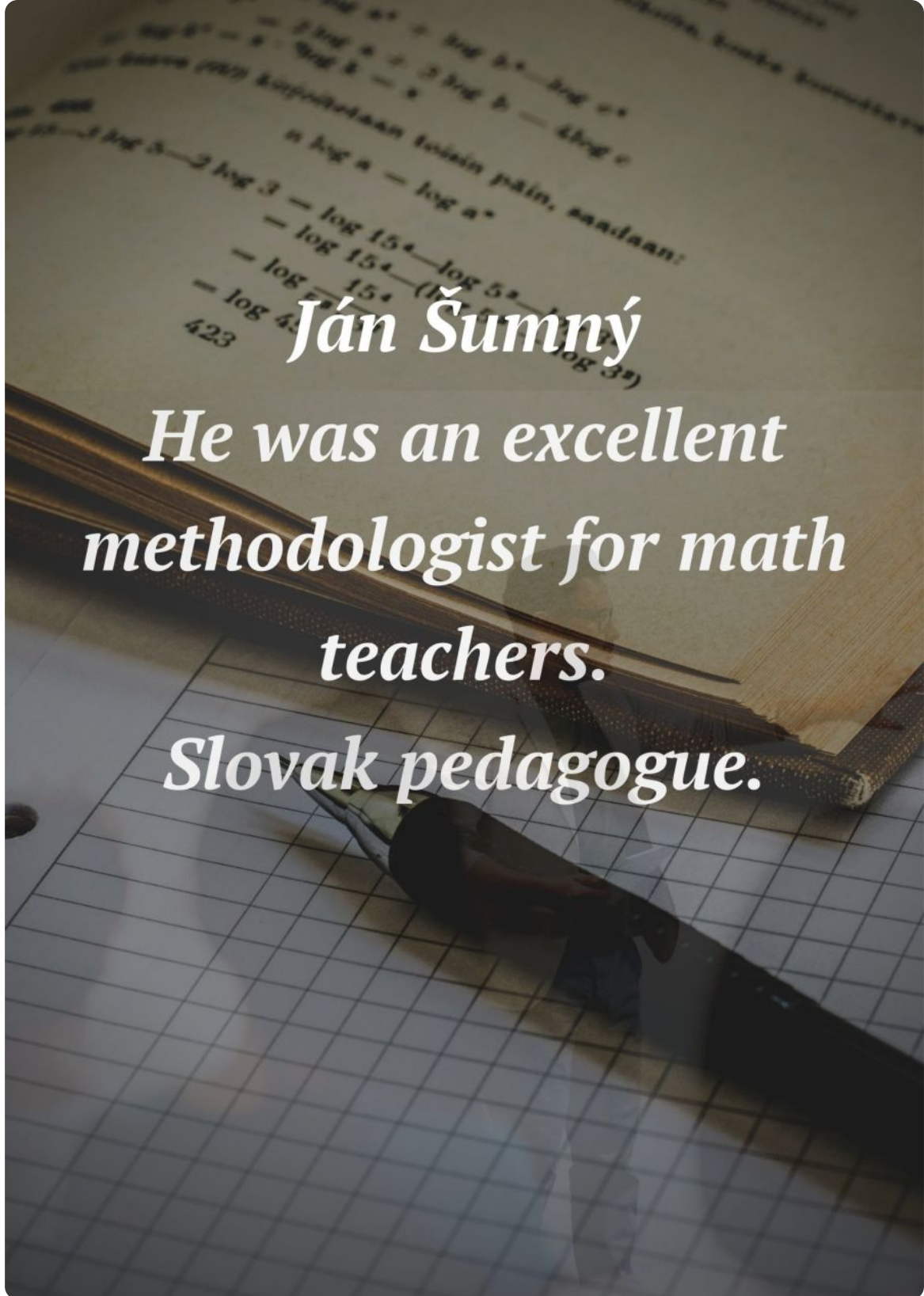
Fibonacci was one of the mathematicians who initially contributed most to trigonometry in the 17th century, because of his work Practica Geometriae, which was a study of Arab trigonometry with surveying.

Birth: 1170

Death: 1250 (80 years)

Nationality: Italian

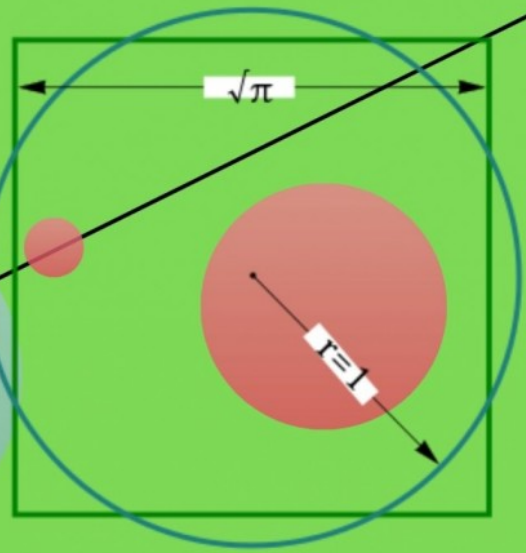
Work done by: Filipe



Ján Šumný

*He was an excellent
methodologist for math
teachers.*

Slovak pedagogue.



ARCHIMEDES

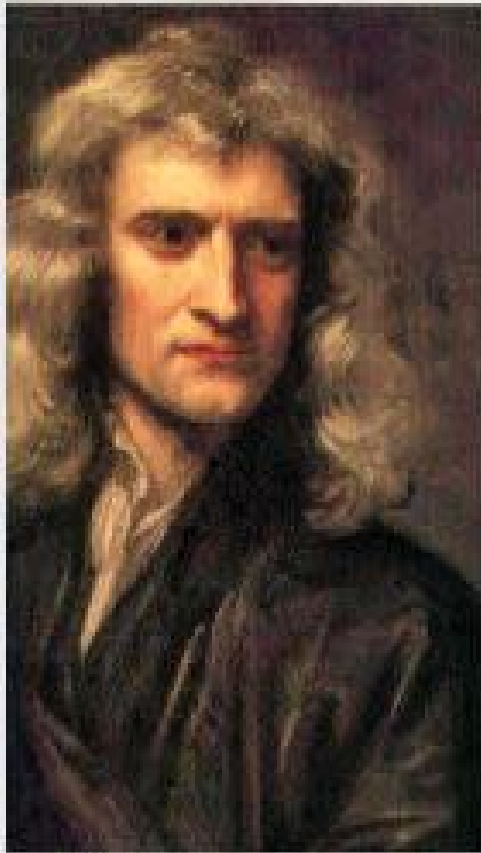
He determined the value of the constant π using the quadrature of the circle.

$$3 + \frac{1}{7} < \pi < 3 + \frac{10}{71} .$$



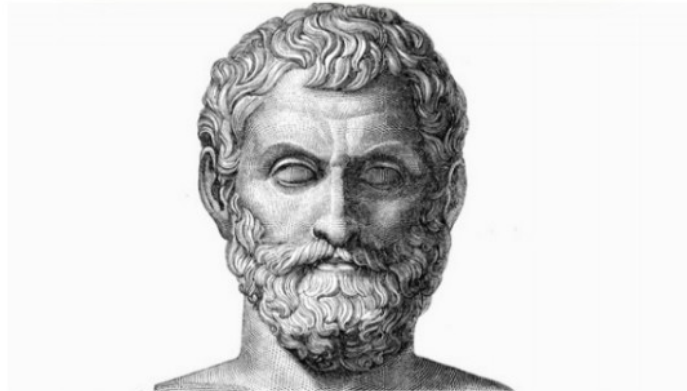
Archimedes

Isaac Newton



**Was an English mathematician,
physicist, astronomer,**

THALES



Thales is an astronomer,
philosopher, and
mathematician from miletos.

Thales is a famous
philosopher among the
seven sages.

Thales founded the milet
school.

Colin Maclaurin



$$f(x) = f(0) + f'(0)x + \frac{f''(0)}{2!}x^2 + \frac{f'''(0)}{3!}x^3 + \dots + \frac{f^{(n)}(0)}{n!}x^n + \dots$$
$$= \sum_{k=0}^{\infty} \frac{f^{(k)}(0)}{k!}x^k$$

Maclaurin was one of Newton's most successful students. He gave works on geometry, algebra and infinitesimal calculus. His work "Organic Geometry" was published in 1719. In this work, conics, third and fourth order curves are examined.

$\lim_{x \rightarrow 1} \frac{\cot x - 2}{2\sqrt{11}x^3} = 2$ $\int (x \pm a)^c$ $\sum = n-1$ $\frac{A}{C}$

$S_3 = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 1 \\ 0 & 0 & 1 \end{bmatrix}$ $\phi = \sqrt{\frac{\sum (x-m)^2}{n-1}}$ $S = \int \sqrt{5t} dt$

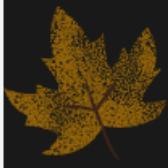
BERNHARD RIEMANN



german mathematician

.....
bernhard riemann (1826-1866), one of the leading
mathematicians of the nineteenth century

it contains the Riemann zeta function, which is a function of a complex variable S (s). In the case of a real part s , where is greater than 1, (tanımlamak Define s as the sum of the convergent array $\sum_{n=1}^{\infty} n^{-s}$; then expand $\zeta(s)$ to the entire complex plane with analytic continuation. The Riemann hypothesis states that if $\zeta(s) = 0$ and the real part of S is between 0 and 1, then the real part of S is exactly $1/2$. This seemingly esoteric state has a fundamental significance for the distribution of primes.





Ján Dubovský

Slovak pedagogue and
mathematician.

θ	0°	30°	45°	60°	90°
$\sin \theta$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0
$\tan \theta$	0	$\frac{\sqrt{3}}{2}$	1	$\sqrt{3}$	Undefined

Born-November 29, 1654

Death-October 8, 1710

FATHER OF GEOMETRY

ÖKLİD



HE WAS AN ALEXANDRIAN MATHEMATICIAN WHO LIVED BETWEEN 330 AND 275 BC

HIS 13-VOLUME BOOK "ELEMENTS", WHICH TREATS GEOMETRY AS A SYSTEM BASED ON PROOFS AND AXIOMS, WAS THE FIRST COMPREHENSIVE WORK IN THIS FIELD.

PLANE GEOMETRY, ARITHMETIC, NUMBER THEORY, IRRATIONAL NUMBERS AND THE GEOMETRY OF SOLID BODIES WERE THE MAIN TOPICS EUCLID COVERED IN HIS BOOK.

MRG ESMANUR/TURKEY

MRG.ESMANUR ÜNYE MRG.SCIENCE HIGH SCHOOL EUCLİD

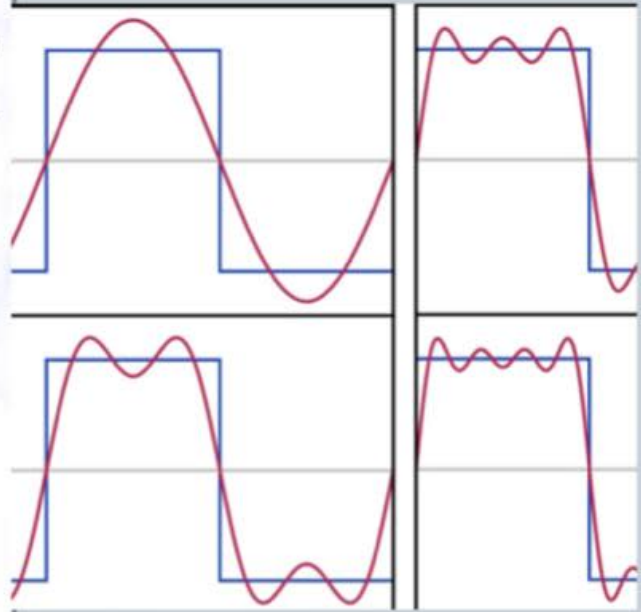
Jean Baptise Fourier



"The most fruitful source of mathematical discoveries is the in-depth study of nature." - JEAN-BAPTISTE JOSEPH FOURIER

Jean Baptiste Joseph Fourier, (b. 21 March 1768, Auxerre-France - d. 16 May 1830, Paris). He is a French mathematician and physicist scientist.

Fourier Series



MRG.FATMAGÜLŞ

MRGFATMAGÜLŞ ÜNYE MRG SCIENCE HIGH SCHOOL /TURKEY

Of mathematicians/Prince of mathematicians



Carl Friedrich
Gauss

- *Died in Göttingen / Germany on
February 23, 1855*
- *His brain still protected in formalin at a
medical school in Göttingen!*

MRGZERRİN.C

MRGZERRİN.C ÜNYE MRG SCIENCE HIGH SCHOOL



Schwarz



known for his work in
complex analysis

1843-1921

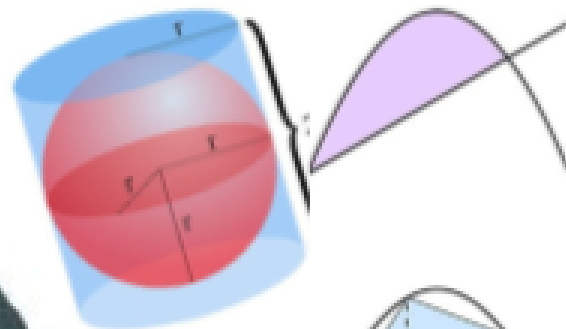
MRGSUDENUR

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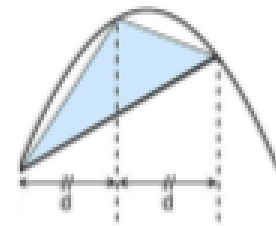


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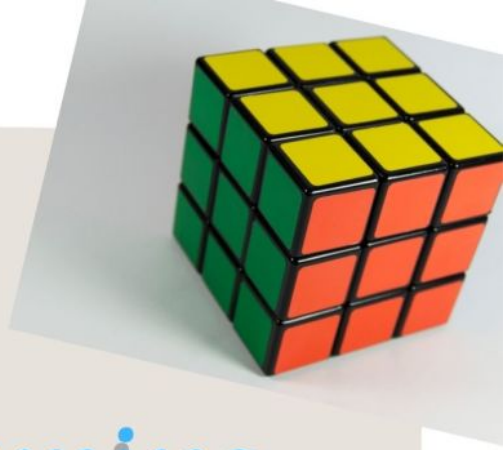
"The greatest mathematician of
all time"



π



Archimedes of Syracuse was a
Greek mathematician, physicist,
engineer, inventor, and
astronomer.



Alan Turing

was British
mathematician, logician,
cryptographer and war
hero



sk Timea