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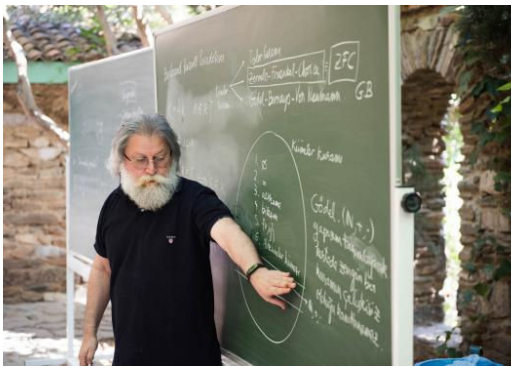

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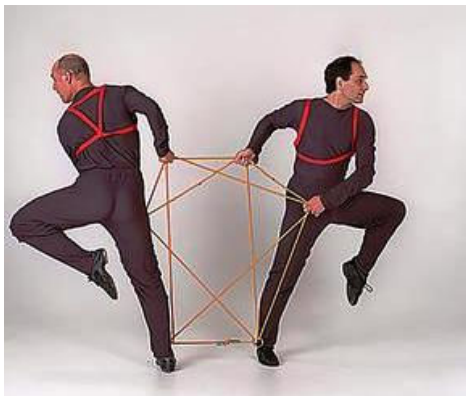
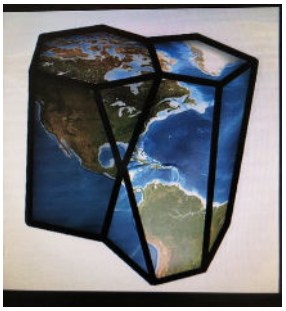
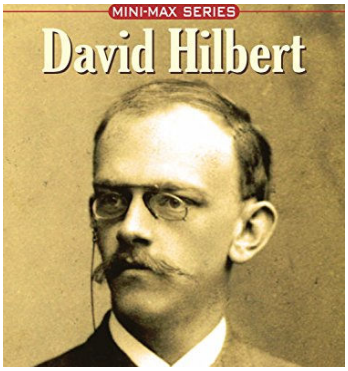
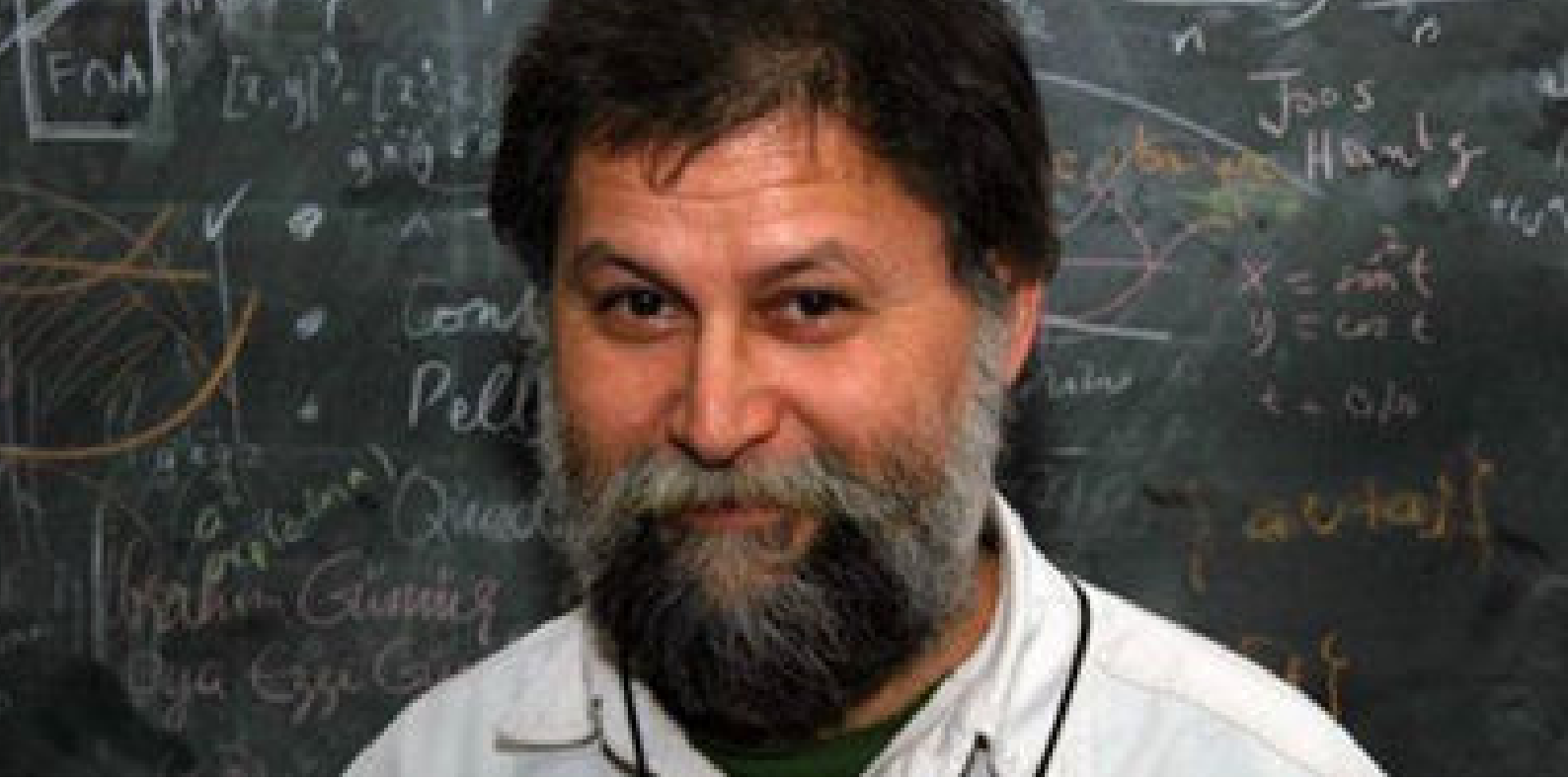








WHO IS ALİ NESİN?

Ali Nesin was born on 18 November 1956 in Istanbul. He is the first son of Aziz Nesin, one of the master writers of Turkish Literature. He completed his primary education in Istanbul Saint Joseph High School and high school in College Champittet in Lausanne, Switzerland. He received his "mastery" degree in mathematics from Paris Diderot University between 1977-1981. He completed his doctorate in mathematical logic and algebra at Yale University in the USA between 1981-1985. He worked as an assistant professor at the University of Notre Dame between 1987-1989, then as an associate professor and later as a professor at the University of California Irvine Campus until 1995.He spent the 1993-1994 academic year as a visiting lecturer at Bilkent University

In 1995, his father Aziz Nesin did return home upon death and what you're in üstlendi.1996 the Foundation executive Istanbul Bilgi University was founded in yapmaktadır.1999 founded and still headed the Mathematics Department of Turkey's Human Rights Institute Foundation (TİHAK) is a founding member.

Between 2003 and 2013, as the Editor-in-Chief of the Turkish Mathematical Society, he published 42 issues of the Mathematics World Magazine.

He founded Nesin Mathematics Village in 2007, Nesin Art Village in 2015 and Nesin Philosophy Village in 2016 and is still managing it.

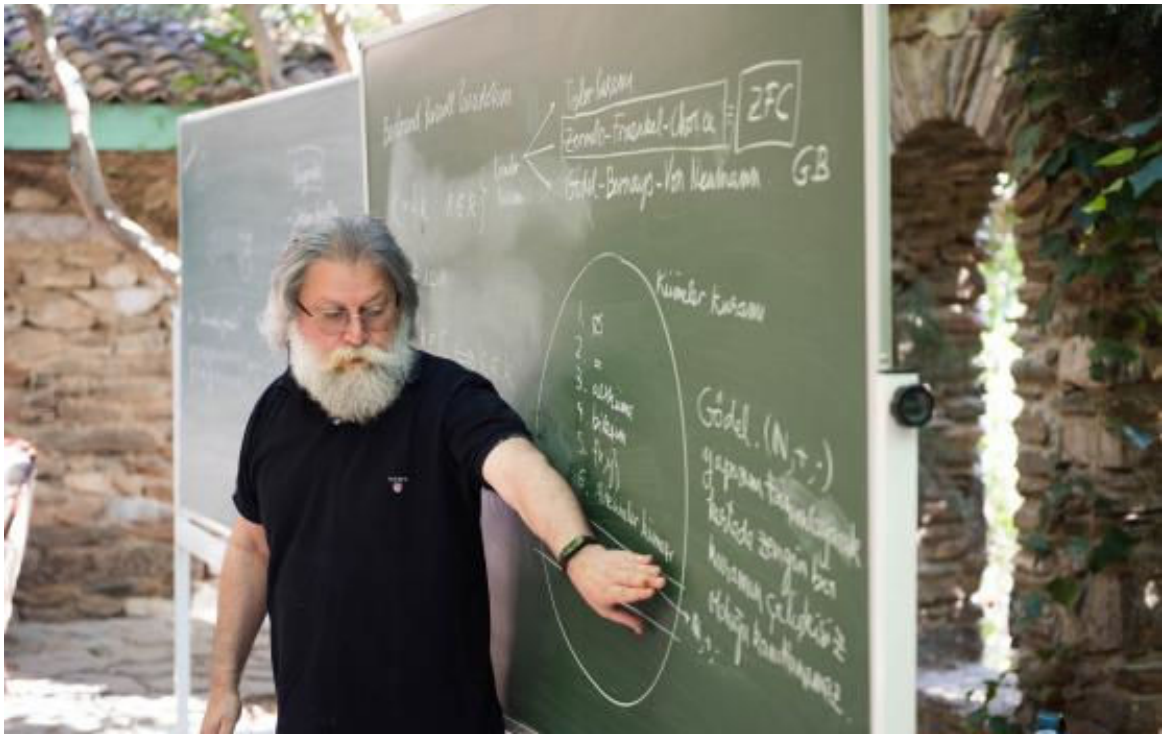
To the 14th Vehbi Koç Award given in the field of education in 2015; breaking the mold of mathematics education and broadcasting in Turkey, research, especially Nesin Mathematics Village project by capturing an exceptional creative achievement in the field of education, Prof. Dr. Ali Nesin and Nesin Mathematics Village Project were awarded.

The Leelavati Prize awarded by the International Mathematical Association in 2018 along with the Fields Medal and accepted as the Nobel of Mathematical Science; He was deemed worthy for his contributions to increasing social awareness of mathematics and his founding Nesin Mathematics Village, which is defined as an extraordinary place for the discovery, education and research of mathematics.

9 POPULAR MATH BOOKS HE WROTE TO MAKE YOUNG PEOPLE LOVE MATHEMATICS;
Math Monster, Math & Camels with Donkeys, Math & Nature, Math & Truth, Math & Horror, Math & Game, Math & Art, Math & Infinite, Mathematician Portraits.
5 textbooks he wrote for Science High Schools;
Mathematics for Science High Schools 1: Set Theory 1, Mathematics for Science High Schools 2: Natural Number Structure, Mathematics for Science High Schools 3: Integer Structure, Mathematics for Science High Schools 4: Fractional Numbers, Mathematics for Science High Schools 5: Real Numbers.
Math books for beginners;
Introduction to Mathematics I - Propositional Logic, Introduction to Mathematics II - Intuitive Set Theory, Introduction to Mathematics III - Counting - Combination Calculations.
4 math books he wrote for undergraduate and graduate students;
Analysis I, Analysis II, Analysis III, Analysis IV.

WHAT ARE ALI NESIN'S CONTRIBUTIONS TO MATHEMATICS?

He founded the Department of Mathematics of Istanbul Bilgi University in 1996 and is still the chairman. Founded in 1999, Turkey's Human Rights Institute Foundation (TİHAK) is a founding member. Between 2003 and 2013, he published 42 issues of Mathematics World Magazine as the Editor-in-Chief of the Turkish Mathematical Society.



NESIN MATH VILLAGE

Nesin Mathematics Village is an educational and research institution operating in the field of mathematics. It was established in May 2007 under the leadership of Ali Nesin and Sevan Nişanyan on a 55-acre land belonging to the Nesin Foundation, 1 km away from Şirince village in İzmir Selçuk.

Nobody has heard of this village, which was founded by Ali Nesin, one of the most important mathematicians of our country. More than 500 students come to the Mathematics Village, which hosts students from all over the country, during the summer months. Considering that Şirince's population is 507, it is obvious how serious this figure is.

Workshops, lectures, seminars and camps on mathematics for scientific and educational purposes or mathematics-related sciences are organized in the village. All kinds of mathematical activities from primary education to advanced research can take place and high school students are given mathematics lessons. In addition to these, social lessons such as philosophy and art are also given.

Thousands of students have been educated in this village, where a great effort has been made with its refectory, streets, library and tower. We can say that the horizons of those who go not for education but for exploring the village have expanded unpredictably.

A document, diploma or similar title is not given for any of the courses given in Nesin Mathematics Village.

In the mathematics village, everyone lives equally. The jobs in the village are distributed according to the individual capacities of everyone, and the dishwashing, cleaning and technical works are carried out by the village residents in a cooperative manner.

There are seminars, trainings, camps, symposiums, meetings, conferences, projects and scientific researches in the village. Individuals or groups can arrange their own organizations and organize similar activities such as a seminar, meeting, training camp.

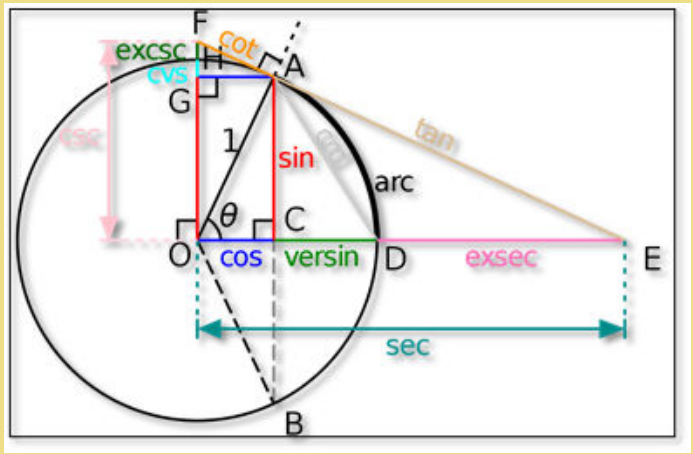
In addition, individual students, teachers, academics, professors, civilians, in other words, everyone can participate in mathematics lessons or scientific activities.

TRİGONOMETRY AND LİFE

- **Where is trigonometry used in daily life?**
- **What are the applications that require trigonometry in our lives and the usage areas of trigonometry?**

Uses of Trigonometry:

Trigonometry, a branch of mathematics that explains the relationship between the angles and lengths of triangles, helped early explorers draw stars and navigate the seas. Today trigonometry is found in everything from architecture to machines. While it may seem like trigonometry has never been used outside of school, it may be surprising to learn how often trigonometry and its applications are encountered in the real world.

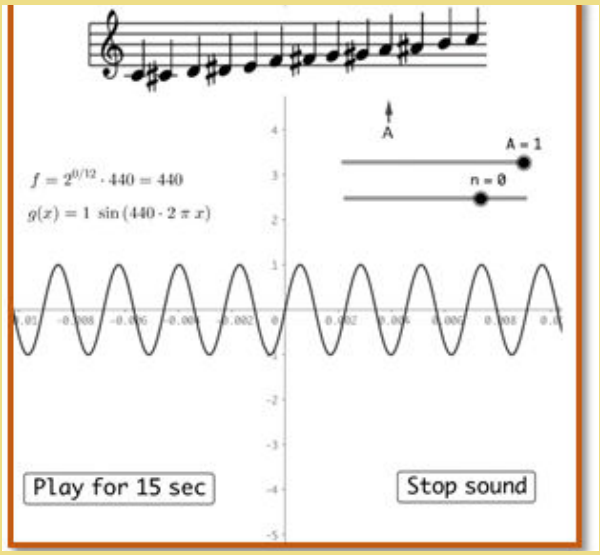


Architecture and Engineering

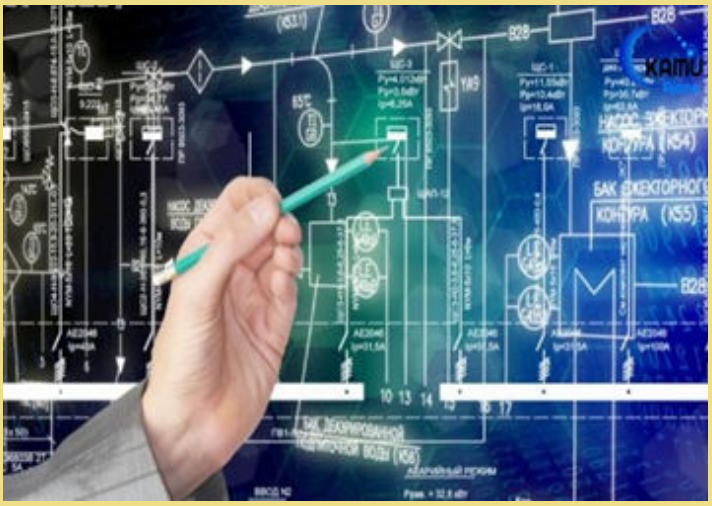
Much of the architecture and engineering is based on triangular supports. When an engineer needs to determine the angle, taking into account the length of the cables, the height of the support towers, weight loads, and bridge strength, trigonometry helps him calculate the correct angles. It also allows builders to accurately place a curved wall, show the appropriate slope of a roof or the correct height of a staircase. In your home, you can use trigonometry to determine the height of a tree or find square footage of a sloping piece of land.

Music Theory and Production

Trigonometry plays an important role in music theory and production. Sound waves travel in a repetitive wave pattern that can be graphically represented with sine and cosine functions. A single note can be modeled on a sine curve, and a chord can be modeled with multiple sine curves used in conjunction with each other. A graphical representation of music enables computers to create and understand sounds. It also allows sound engineers to visualize sound waves so they can adjust the volume, pitch, and other elements to create desired sound effects. Trigonometry also plays an important role in speaker placement, as the angles of sound waves to the ear can affect sound quality



Electrical Engineers and Trigonometry



Modern energy companies use alternating current to send electricity over long distance cables. In an alternating current, the electrical load regularly reverses its direction to safely and reliably power homes and businesses. Electrical engineers use trigonometry to model this flow and change in direction, with the sine function used to model voltage. Every time you turn a light switch or turn on the TV, you benefit from one of the many uses of trigonometry.

Production

Trigonometry plays an important role in the industry, allowing manufacturers to create everything from cars to zigzag switches. Engineers rely on trigonometric relationships to determine the dimensions and angles of mechanical parts used in machinery, tools, and equipment. This math plays an important role in automotive engineering, enabling auto companies to accurately size each part and work together safely. Even basic trigonometric relationships are used to determine the length of the fabric needed to get a particular skirt or t-shirt.

A New Geometric Shape "Scutoid"

The world of science has discovered a new geometric shape. This shape called "scutoid" has been observed to emerge from the three-dimensional reflection of the epithelial organs. While doing cell research, scientists saw that there was a new structure inside the cells, and the layers forming the inside and outside of the new shape emerged as the combination of geometric objects within epithelial cells.

Scientists from Lehigh University in Pennsylvania, home of important research, do not fully understand the shape of these individual cells, but often assume they resemble column-like prisms or a truncated pyramid called a bottle-shaped frustrum. But when scientists tried to create a 3D model of epithelial cells, they came across a surprise. They saw that the shapes designed in the computer environment were geometric shapes that contain similar elements that provide the same properties.

Bioengineer Javier Buceta, who conducts research activities at Lehigh University, said: "During the modeling process, the results we saw were strange. "Our model predicted that as the curvature of the tissue increased, columns and bottle shapes were not the only structures developed by cells."

After the researchers identified Scutoid in 3D, they sought to find preliminary evidence of twisted prism in the epithelial tissue of both fruit flies and zebrafish, to confirm the discovery in nature. But because all animals contain this type of skin cell, the research group thinks that the way we think about epithelial tissue could be an important turning point in identity.

Although much more research is needed to confirm how prevalent Scutoid actually is in living things, the researchers claim that their findings will pave the way for a new and unique understanding of the three-dimensional organization of epithelial organs. Buceta said, "For example, if you want to grow artificial organs, this discovery will encourage you to build a scaffold for the purpose of cell sequencing in that structure, imitating nature's path in the right structure to develop tissues efficiently. "We've unlocked nature's solution to achieve effective epithelial bending," he said.

ANOTHER PERSPECTIVE TO MATHS

In a maths class, the question you'd most likely to hear is "Where would we be using this in our daily life though?". In fact, we use mathematics a lot in our daily life even if we don't realise. Not just daily life. Whatever your occasion is, you have no escape of maths. Sometimes the students think our life would be a lot easier if maths didn't exist but that's not quite right. If maths didn't exist, you wouldn't have known about numbers, therefore time, heights, weights, prices, computers and technological devices wouldn't have existed.

When you are in a supermarket: number of the products you'll buy, the price you'll have to pay... when you think about these, you use mathematics. Or when you're planning your day: when you're thinking about the time you'll wake up, the amount of sleep you'll get, you use mathematics. When you're making routine budgets, when you're exercising, when you're cooking or baking, when you're driving you use mathematics

The reason we use mathematics this much is because mathematics makes our lives easier with its certainty. Mathematics gives accurate results. Among all of the possibilities, mathematics shows the number of the possibilities and the most possible one.

Also we use mathematics for the problem-solving skill it provides. Thinking the problem, the solution to it, the possibility of the solution's success, the other way outs... we can all do this because of maths.
So, when you say mathematics is unnecessary, think again.

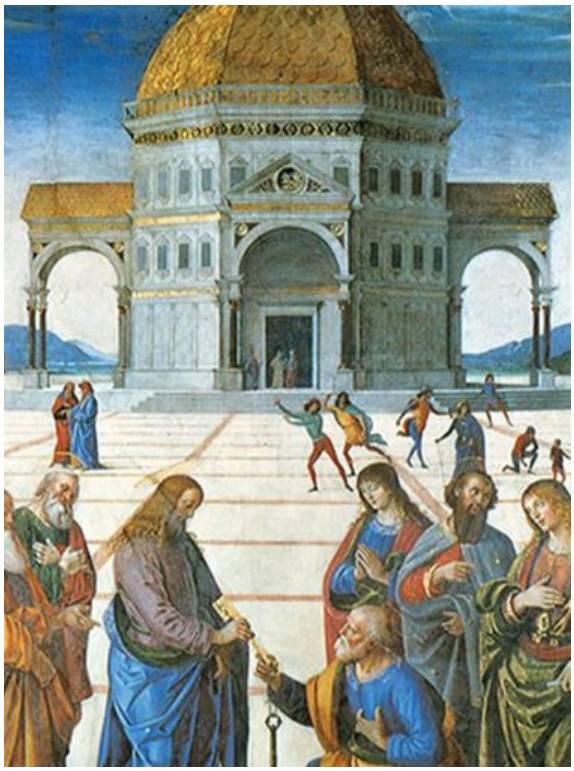
Renaissance Period Mathematics

This period is also known as the awakening period of mathematics. With the development of commercial relations, accounting accounts gained importance in this period. In addition, many books have been written in the fields of algebra and trigonometry.

Among the mathematicians of this century worthy of mention are Luca Pacioli (1445-1509), who wrote works on algebra, Regiomontanus (1436-1476), who played trigonometry, Nicolas Chuquet (d.1500), whose work on equations (d. expressed).

The world was changing rapidly in the 16th century. Trade has become widespread and mathematical operations have become even more complex. Until then, quadratic and tertiary equations could be solved. Omar Al-Khayyam solved these equations with the help of the cone section. Mathematics needed symbolization. Fourth and higher order equations had to be solved.

Renaissance mathematics made great progress, especially with Raffaello Bombelli, François Viète and Simon Stevin. Tartaglia (1506-1537), Cardano (1501-1576), Ferrari (1522-1560), Bombelli (born 1530) found solutions to third and fourth order equations.
The French mathematician Viete (1540-1603) first used the vowels of the alphabet for the unknown and consonants for the known in algebra, thus introducing the principle of the symbols we use in algebra today.



Tartaglia solved the cubic equation of the third order in a competition held in Venice. Cardano wrote this information in his book Magna in 1545.

Cardano discussed the general theory of third and fourth order equations by addressing the issue of how many roots an equation can have. He thought that to find all roots, not only negative numbers but also complex numbers were needed, he revealed the relationships between roots. Thus, it is now possible to express the solution of a general fourth degree equation with an algebraic formula.

Leonardo da Vinci revealed the relationship between mathematics and art during this period. Painting is a science according to Leonardo da Vinci. And behind every science is a powerful math. According to him, it should be linked to practical theory.

Towards the end of the Renaissance, there was a change in the understanding of mathematics. This understanding • suggests that "precise mathematical concepts can be substituted for the colorful and lively table of nature, and the living nature can be reduced to a mathematical proportions chart".

Black Holes Mapped Mathematically

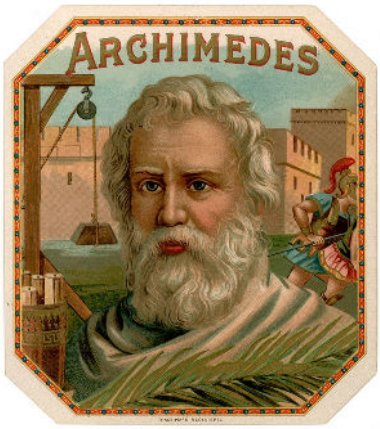
Scientists are now confident that black holes exist. But there are innumerable ideas about what black holes look like. Because no black hole has yet been seen and it is not known what is inside. So why? The reason for this is simply as follows. Black holes attract all the objects and light that get inside. Therefore, light does not reach our world from the black hole. Technological devices are insufficient in this regard. Researchers from Johns Hopkins and Towson University have tried using mathematics for this imperative observation. Physicists have come up with many shapes. Since the coordinates they are found are different, they are different in the ways they put forward. For this to be standard, a mathematical modeling is required. By taking into account the curvature of the coordinates with mathematical modeling, clearer information is obtained about the shapes of black holes.

Caesar and captives

After one war, Caesar captured 100 captives, and had one of them locked in a cell and left a guard on their head. Only one key is used to open and close the cells. If the door of any cell is turned once with this key, it closes if it is open and opens if it is closed. Birth Caesar wanted to release some of these captives. He gave instructions for this. All cells should be numbered from 1 to 100 and their doors should be closed. The guardian key of cell 1 once locks all cells from 1 to 100. The guardian of cell 2 takes the key and you turn the locks of cells 2, 4, 6,...., Once. The guardian of cell 3, you turn the locks of cells 3, 6, 9,...., 99, once. Continue in this way, you take the guardian of cell 100 and dial the address of cell 100. During these processes, the prisoners did not come out of their cells. Finally, Caesar called out to the prisoners, "Those whose cell doors are open are free." Accordingly, in which cells the prisoners survived?

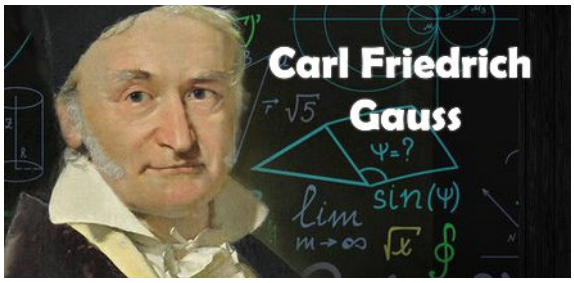
FAMOUS QUOTES ON MATHEMATICS

“Mathematics is the language with which God has written the universe.”
– Galileo Galilei –

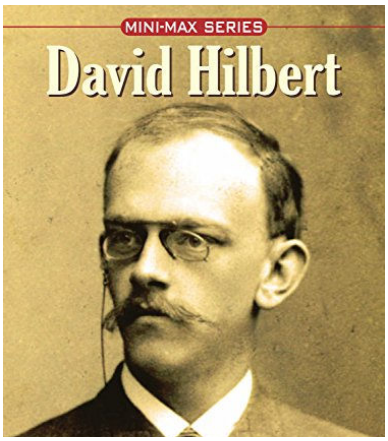


“Mathematics reveals its secrets only to those who approach it with pure love.”

– Arşimet –



“Mathemathics is the queen of the science”
– Carl Friedrich Gauss –

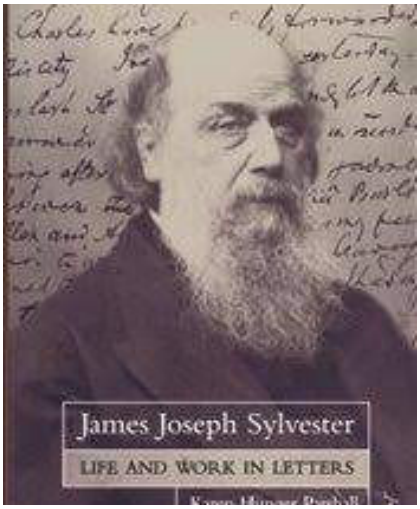


“Mathematics knows no races or geographic boundaries; for mathematics, the cultural world is one country.”
– David Hilbert

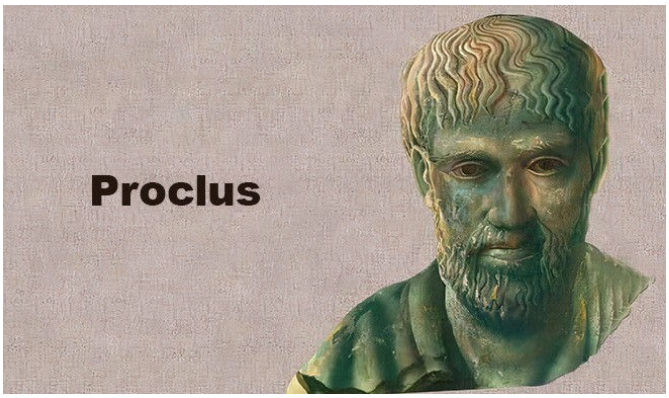
“Without mathematics, there’s nothing you can do. Everything around you is mathematics. Everything around you is numbers.”
– Shakuntala Devi –

"Any research that cannot be represented mathematically cannot be considered a true science."
-Leonardo da Vinci-

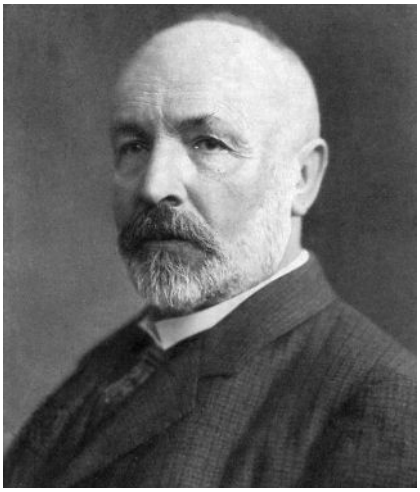
“Mathematics is the music of reason.”
– James Joseph Sylvester



“Wherever there is number, there is beauty.”
– Proclus –



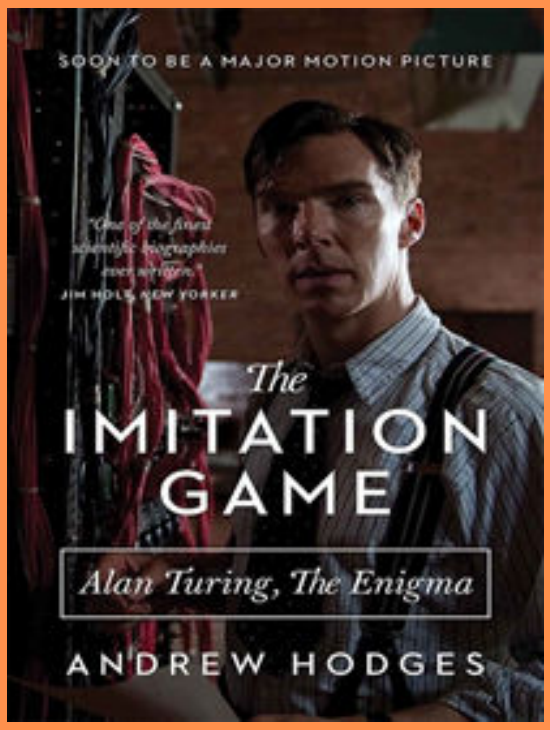
“The essence of mathematics lies in its freedom. “
– George Cantor –



-MOVİE AND BOOK RECOMMENDATİONS-

The Imitation Game

Save you tears for this movie! This's also an exciting movie but I'm warning you at some parts this can break your heart. When you watch this movie, you truly understand the power and importance of math. After I watched this movie, I begun to see math in a different perspective. İf you're one of the people who say "Why math is that important?" then you should definitely watch this one. I don't want to give more spoilers 😊

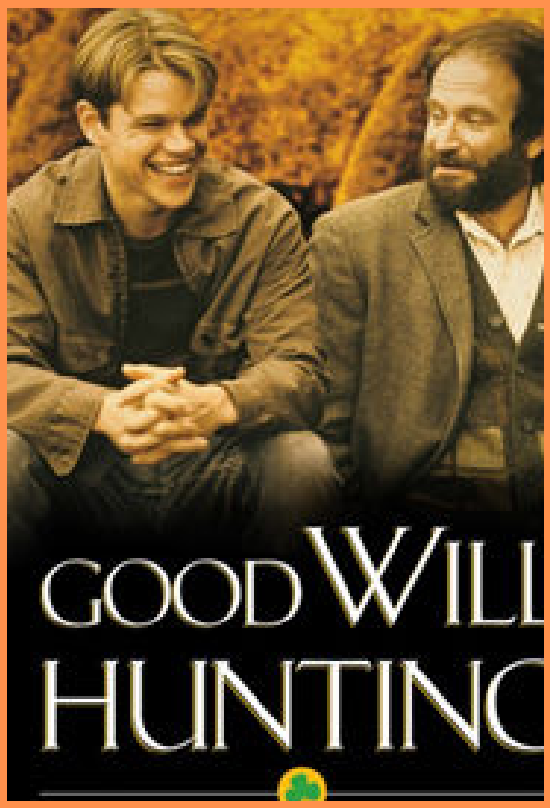


A Beautıful Mınd

This's really a fascinating movie. You feel the adrenalin in your blood while you're watching it. Also, it reminds us that if you try (I mean trying really hard) you can let go anything in life. There's a mathematician in starring role and he struggles from schizophrenia but he never gives up on his career. Yeah, this really should be in your what to watch list.

Good Will Hunting

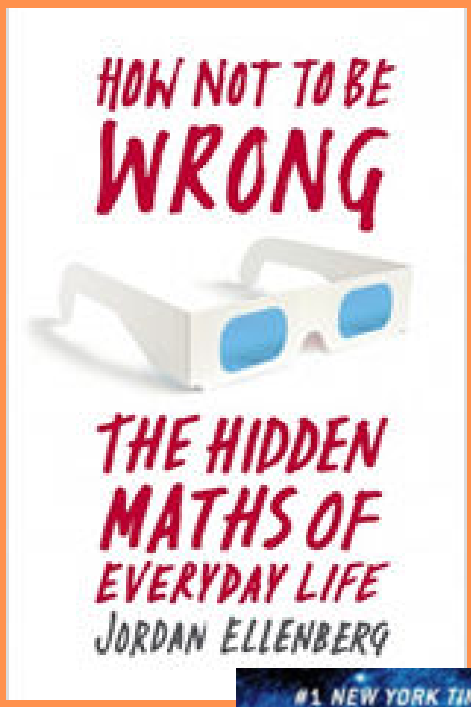
You won't notice when this movie ends. Somehow it gets your attention all the time. This movie is a cute one. Your heart will melt. İt's about a boy who's poor but then some teachers notice that this boy has a very unique and powerful thinking in math. They tell him that this can be a way out. Then boy falls in love and everything gets mixed up. This's about life, math and love.



-MOVİE AND BOOK RECOMMENDATİONS-

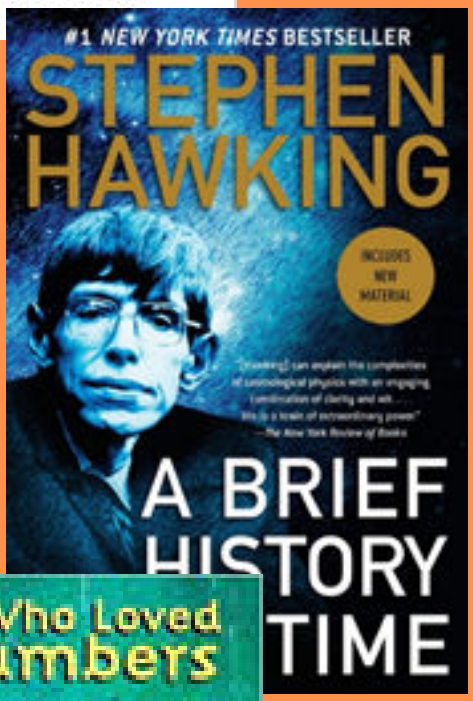
The Hidden Maths of Everyday Life
by Jordan Ellenberg

This book makes us see math in life. Believe me you'll become to notice more math in life. Before I read this one there were only objects nothing more but after I read it I started to see more. Math is near us, it's just hiding. İf we look close enough we sure can see it everywere! İf you want to see that this book can help😉



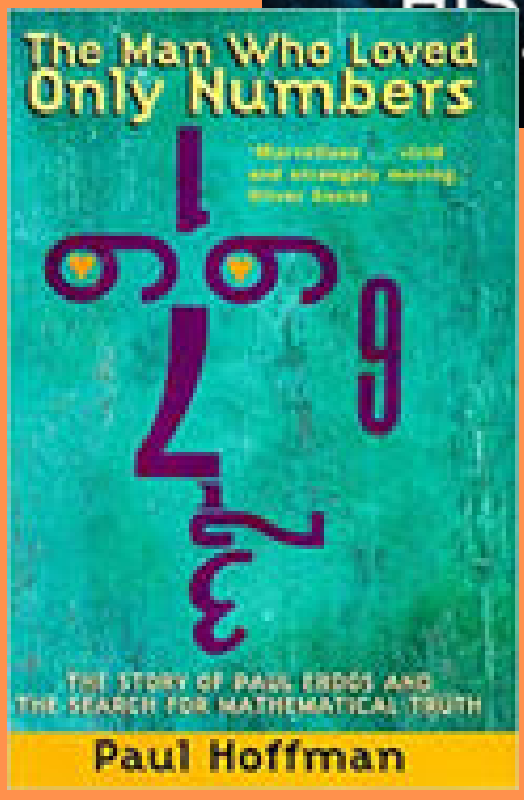
A Brief History of Time by Stephen Hawking

If you think about and wonder about universe and before the universe you should literally buy this one. There're some theories which might get your attention. It tells us that we can find all the answers with math. İf you believe in the power of math, just go on, trust me, buy this one.



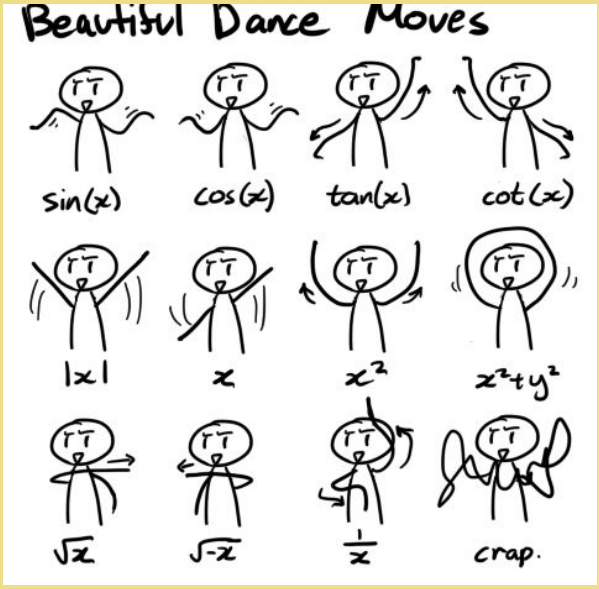
The Man Who Loved Only Numbers
by Paul Hoffman

Sometimes I hear people say "How do mathematicians brain work? How do they see the world?" If you're one of those people you can find an answer if you read this one. Also, this book has an entertaining style, author who's a mathematician, tells us about his brain and perspective with some jokes. You'll enjoy this one. İf you get bored with technical terms but wonder about math, start with this one.

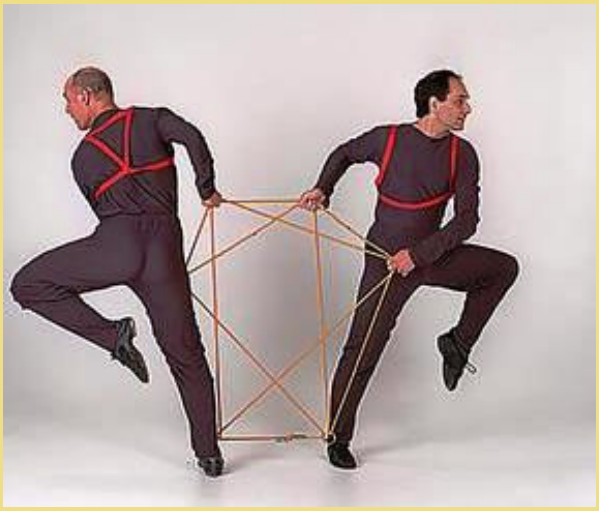


ENTERTAINMENT

The Dance of Mathematics



Rope Game



Pythagorean Cup of Justice

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SELİN B. NİŞANTAŞI NURİ AKIN ANATOLIAN HIGH SCHOOL
SEVDE C. DARICA NEŞET YALÇIN ANATOLIAN HIGH SCHOOL
SUDE G. MUSTAFA PAŞA ANATOLIAN HIGH SCHOOL
YUSUF SADİ Z. MUSTAFA PAŞA ANATOLIAN HIGH SCHOOL
ZEYNEP K. NİŞANTAŞI NURİ AKIN ANATOLIAN HIGH SCHOOL
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