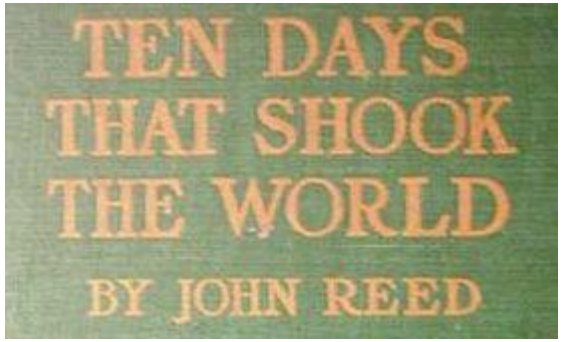


Ten Days That Shook the World (1919) is a book by American journalist and socialist John Reed about theOctober Revolution in Russia in 1917, which Reed experienced firsthand. Reed followed many of the prominentBolshevik leaders, especially Grigory Zinoviev and Karl Radek, closely during his time in Russia. John Reed died in 1920, shortly after the book was finished, and he is one of the few Americans buried at the Kremlin Wall Necropolis inMoscow, a site normally reserved only for the most prominent Soviet leaders.

Ten Mathematicians Who Shook The World

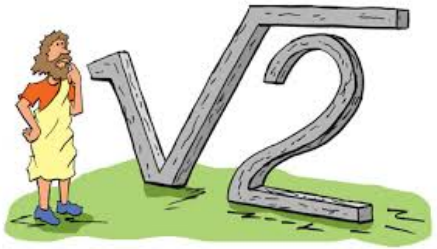
I call them "Martyrs of Mathematics", (Matematik Şehitleri), some of whom lost their lives because of their Mathematics; from ancient times to present day, there are so many; but in this talk I will mention only ten of them, their mathematics, their philosophy, and their tragic lives...

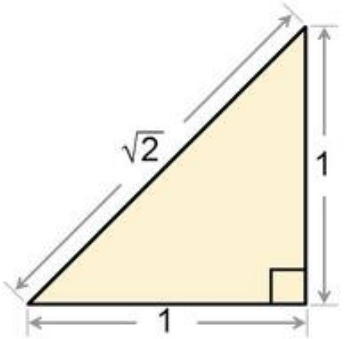
Newton Euler Gauss Riemann Hilbert and many more

elbette büyükler
ama biz “sarsmak” tan bahsediyoruz
ani depremlerden
bir anda insanlık düşüncesini değiştirenlerden
yukardaki büyükler bir sürecin içindeydiler
elbette o süreç içinde matematikde evrim yaşandı
ama bizim bugünkü konumuz başka..
evrim değil devrim..!

Hippasus, 5th century BC

a student of ***Pythagoras***, who proved that



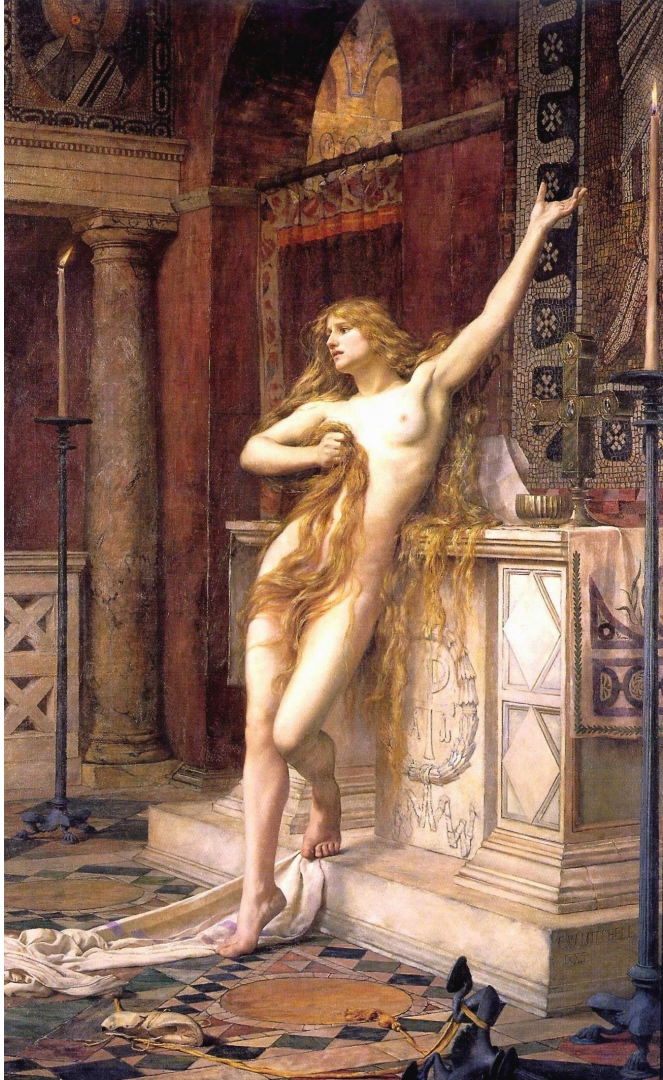


is not a rational number, i.e. incommensurable.

Hypatia, 350 - 415 AD, Alexandria, Egypt

The first woman mathematician, a student of Plato and Aristotle,

Hypatia was a Greek Alexandrian Neoplatonist philosopher in Egypt. As head of the Platonist school at Alexandria, she taught philosophy and astronomy. Hypatia was murdered by a Christian mob, effectively marking the downfall of Alexandrian intellectual life. She with her father edited a new version of Euclid's *Elements.* Hypatia wrote commentaries on Diophantus's *Arithmetica,* on Apollonius's *Conics* and on Ptolemy's astronomical works. S*he was not only intellectual but also beautiful, eloquent, and modest.*



Hedy Lemarr wasn't just an iconic actress from Hollywood's Golden Age - she was also a mathematician and the inventor of frequency hopping spread spectrum, a technology still used in modern bluetooth and WiFi.

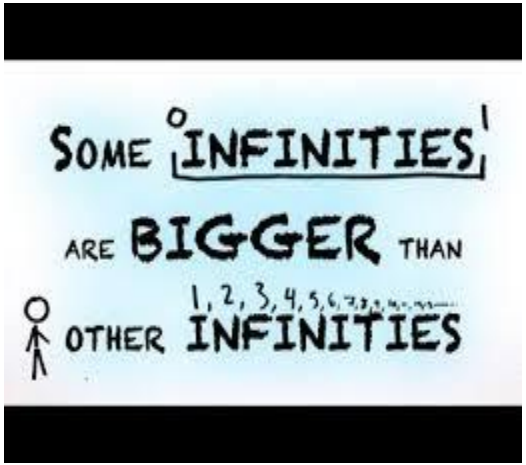
Évariste *Galois*,*1811 –1832*

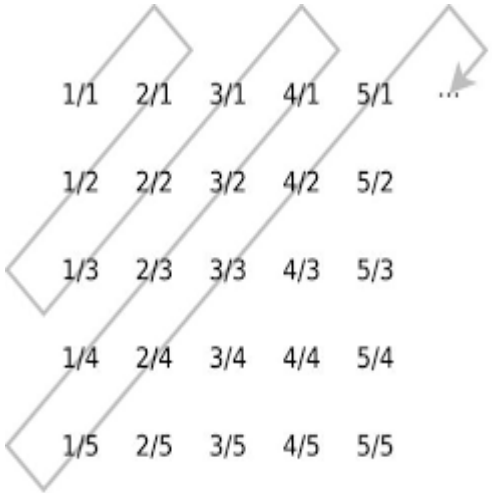
While still in his teens, **Évariste Galois** was able to determine a necessary and sufficient condition for a polynomial to be solvable by radicals, thereby solving a 350 years-standing problem.

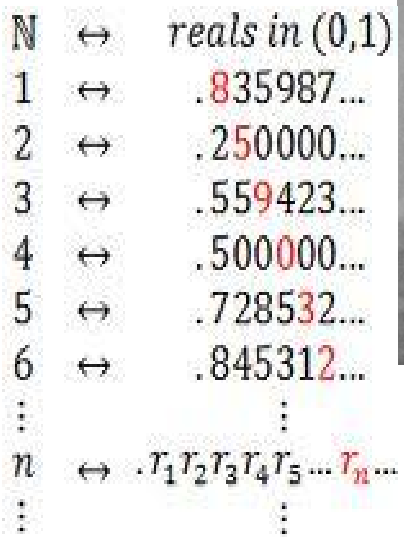
His work laid the foundations for Galois Theory and ***Group Theory***.

The most famous contribution of this manuscript was a novel proof that there is no quintic formula – that is, that fifth and higher degree equations are not generally solvable by radicals.He called the decomposition of a group into its left and right cosets a *proper decomposition* if the left and right cosets coincide, which is what today is known as a ***normal subgroup***. He also introduced the concept of a ***finite field*** (Galois field). He has also made basic studies of linear groups over finite fields: GL(*v*, *p*) and PSL(2, *p*)... alexander grothendieck & today

Georg Cantor Russia 1845 - Germany 1918







Set Theory, Infinity of Infinities:

Weierstrass, Kummer, Kronecker, H. Weyl and Henri Poincaré also opposed him! "grave disease" infecting the discipline of mathematics, while Wittgenstein raised philosophical objections. Some Christian theologians saw Cantor's work as a challenge to the uniqueness of the ***absolute infinity*** in the nature of ***God***. Cantor thought that infinite numbers really existed. Kronecker disagreed with him. He thought that only integers existed. Kronecker said that "***God made integers and all the rest is the work of man***".

Continuum Hyphotesis & TheAxiom Choice

Cantor believed his theory of transfinite numbers had been communicated to him by God. In his doctoral thesis Cantor said that asking questions was more important than finding the answers. Kronecker personally attacked Cantor as a "***scientific charlatan***", and a "***corrupter of youth***".

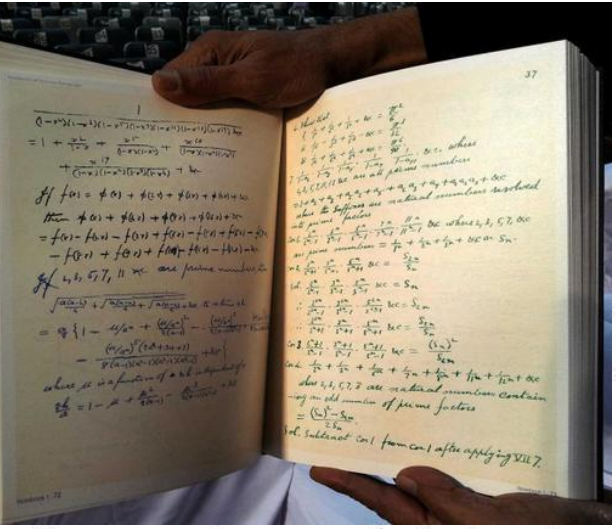
CH: there exists no set whose cardinality is greater than that of the naturals and less than that of the reals. A 1940 result by Kurt Gödel and a 1963 one by Paul Cohen together imply that the Continuum Hypothesis can neither be proved nor disproved using standard Set Theory plus the **Axiom of Choice**.

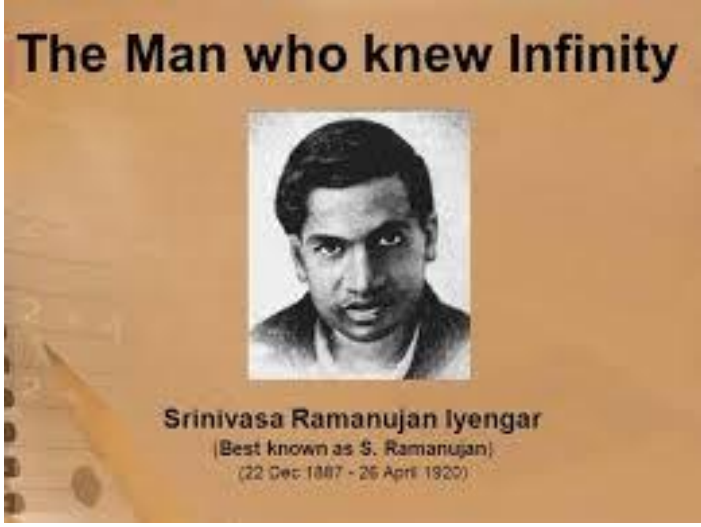
In his late years Cantor did not want young mathematicians to suffer like he had because of older mathematicians who felt threatened by new ideas. David Hilbert defended Cantor: "***No one shall expel us from the Paradise that Cantor has created***".

Cantor died in a ***mental hospital*** in Halle on 6 January 1918.

Srinivasa Ramanujan

1887 - 1920, 3,900 identities!





$$\frac{1}{\pi} = \frac{2\sqrt{2}}{9801} \sum_{n=0}^{\infty} \frac{(4n)!(1103 + 26390n)}{(n!)^4 396^{4n}}$$

$$\sum_{n=0}^{\infty} (-1)^n \frac{(1/2)_n (1/4)_n (3/4)_n}{(1)_n^3} \frac{21460n + 1123}{(882)^{2n+1}} = \frac{4}{\pi}$$

$$\left[1 + 2\sum_{n=1}^{\infty} \frac{\cos(n\theta)}{\cosh(n\pi)}\right]^{-2} + \left[1 + 2\sum_{n=1}^{\infty} \frac{\cosh(n\theta)}{\cosh(n\pi)}\right]^{-2} = \frac{2\Gamma^4\left(\frac{3}{4}\right)}{\pi}$$

$$\sqrt{\frac{\pi e}{2}} = \frac{1}{1 + \cfrac{1}{1 + \cfrac{2}{1 + \cfrac{3}{1 + \cfrac{4}{1 + \cfrac{5}{1 + \cfrac{6}{1 + \cfrac{7}{1 + \cfrac{8}{1 + \ddots}}}}}}}}} + \left\{1 + \frac{1}{1\cdot 3} + \frac{1}{1\cdot 3\cdot 5} + \frac{1}{1\cdot 3\cdot 5\cdot 7} + \frac{1}{1\cdot 3\cdot 5\cdot 7\cdot 9} + \cdots\right\}$$

$$\begin{aligned} 1729 &= 1^3 + 12^3 \\ &= 9^3 + 10^3 \\ &= 7 \times 13 \times 19 \end{aligned}$$

22	12	18	87
88	17	9	25
10	24	89	16
19	86	23	11

Look at these possibilities
Sum of identical colored boxes is also 139.

Interesting..?

Allan Adler 1950 - ?

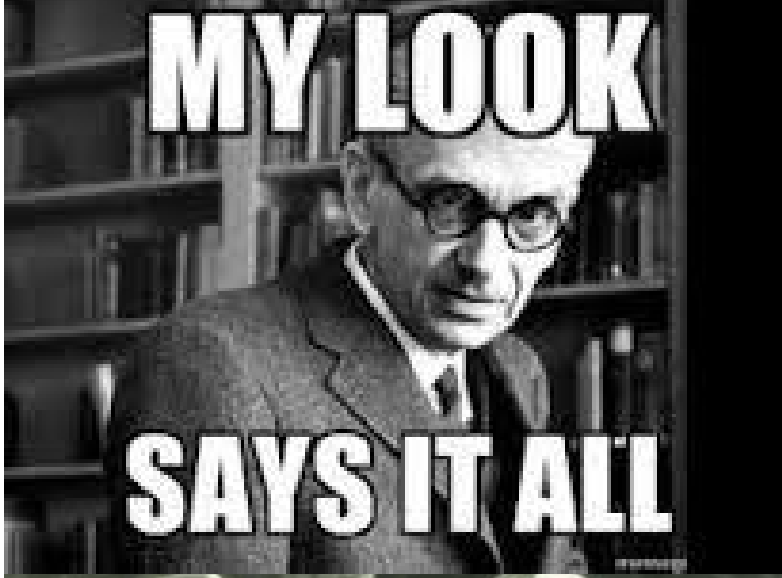
8	1	6
3	5	7
4	9	2

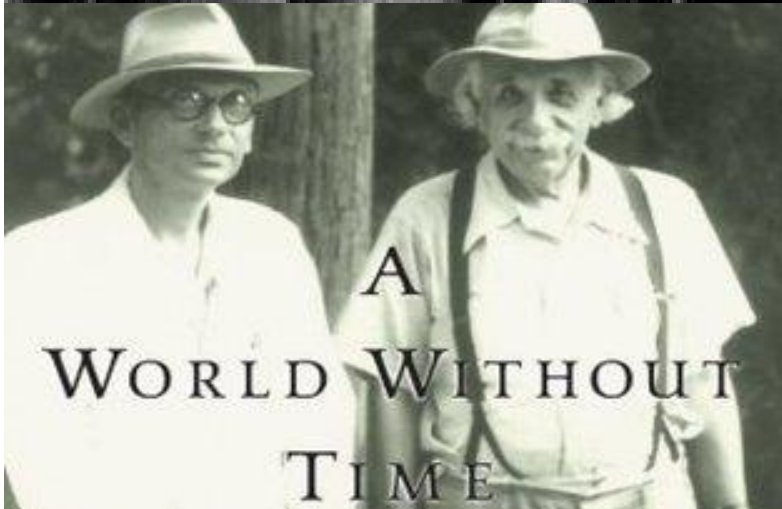
1	15	14	4
12	6	7	9
8	10	11	5
13	3	2	16

8	1	6	134	127	132	125	118	123	35	28	33
3	5	7	129	131	133	120	122	124	30	32	34
4	9	2	130	135	128	121	126	119	31	36	29
107	100	105	53	46	51	62	55	60	80	73	78
102	104	106	48	50	52	57	59	61	75	77	79
103	108	101	49	54	47	58	63	56	76	81	74
71	64	69	89	82	87	98	91	96	44	37	42
66	68	70	84	86	88	93	95	97	39	41	43
67	72	65	85	90	83	94	99	92	40	45	38
116	109	114	26	19	24	17	10	15	143	136	141
111	113	115	21	23	25	12	14	16	138	140	142
112	117	110	22	27	20	13	18	11	139	144	137

Kurt Gödel 1906 - 1978

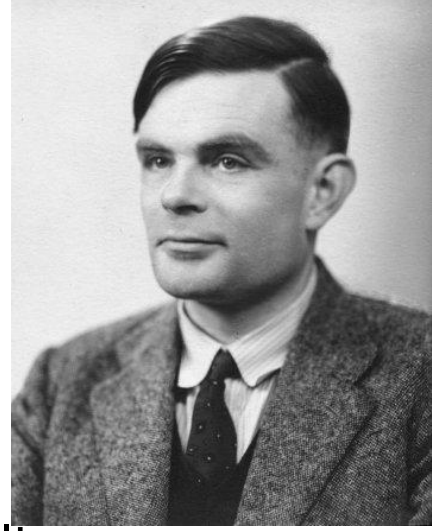
AUSTRIAN-BORN US philosopher and mathematician Kurt Gödel is most famous for his incompleteness theorems (1931), which revolutionized logic. Gödel showed that in any formal system (a symbolic system based on axioms), there exist propositions that are undecidable (they can neither be proved nor disproved). Most importantly, the consistency of the axioms themselves cannot be proved. Gödel's work has had a profound impact on how mathematicians think about their subject. In particular, it shows why the attempts of David Hilbert, Bertrand Russell, and others to create a purely axiomatic foundation for mathematics must fail.





Alan Turing 1912 - 1954

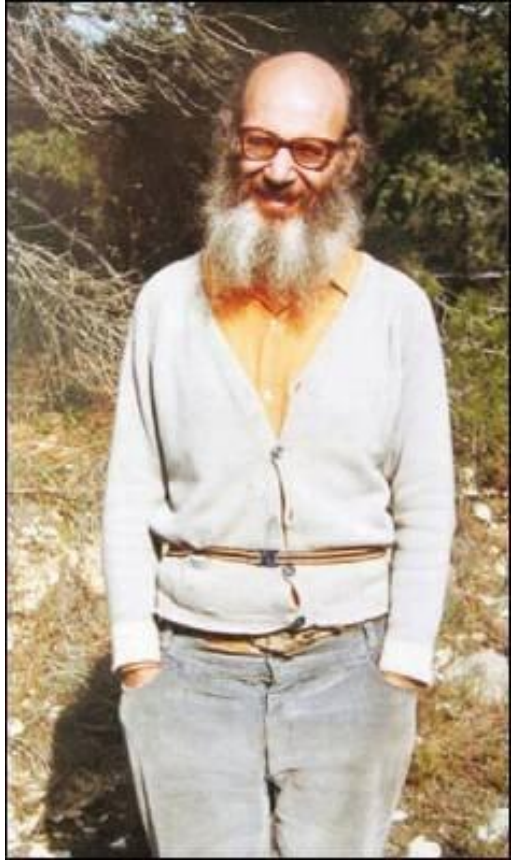
Father of the modern Computer



Turing machine: an entirely virtual construct which could perform calculations and follow instructions.

Halting Problem*:* Is there an algorithm that can decide whether any other algorithm will eventually halt,or whether it will run forever. Turing demonstrated that such an algorithm *cannot* exist. Since algorithms = Turing machines, he proved that there is no algorithm that can determine if a given Turing machine will halt with a specific input. If there were an algorithm able to decide whether our program eventually halts, then this would amount to settling the ***Goldbach conjecture***: if it halts then the conjecture is false, if it doesn't, then it is true, putting mathematicians out of a job!

Alexander Grothendieck 1928 -



Grothendieck's genius was to recognize that there is a "being" hiding behind a given algebraic equation (or a system of equations) called a scheme. The spaces of solutions are mere projections, or shadows of this scheme. Moreover, he realized that these schemes "interact" with one another, can be "glued" together and so on. Grothendieck confronting the world's ills with his signature rigor and passion. He fought against the injustice he saw, accepting no compromises. A party of one, he was unafraid to be himself and to speak his truth. The man who had advanced mathematics in the most profound ways did not believe that math was the answer to everything.

He taught us that life is more valuable than any equation.

Senelerden 1972

Grothendieck Berkeleye geldi

⇐ Aynen bu vaziyette idi

Benim vaziyetim de böyleydi ⇒

İlk konuşması Topos lar üzerineydi

İkincisi savaş karşıtı politik bir konuşmaydı

O konuşmada ben de vardım

İlk sözleri: "***Matematik yapmayı bırakın!***" oldu

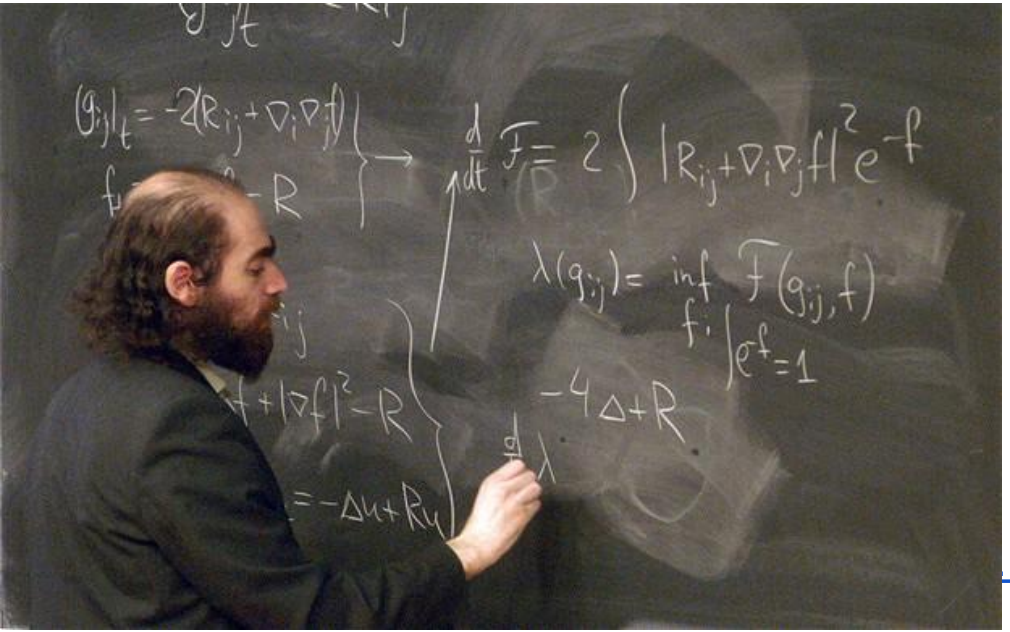
"*Biz zararsızız, boma falan yapamayız*" diyen mantıkçılara,

"***Siz hemen derhal bırakın!***" demişti...

Grigory Perelman 1966 -

I'm not interested in money or fame;

I don't want to be on display like an animal



http://www.1tv.ru/videoarchive/19749

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