ENGLISH TENSES

Я ПРОЧИТАЛ КНИГУ

КНИГА БЫЛА ПРОЧИТАНА МНОЙ

I READ THE BOOK

THE BOOK WAS READ BY ME

ACTIVE TENSE

PASSIVE TENSE

ACTIVE TENSES

	Simple (Indefinite)	Continuous (Progressive)	Perfect	Perfect Continuous (Perfect Progressive)
Past				
Present	!!!			
Future				
Future-in-the-past				

ACTIVE TENSES

	Simple (Indefinite)	Continuous (Progressive)	Perfect	Perfect Continuous (Perfect Progressive)
Past				
Present	S + V1 + O			
Future				
Future-in-the-past				

PRESENT SIMPLE

I EAT – Я ЕМ

YOU EAT – ТЫ ЕШЬ

YOU EAT - ВЫ ЕДИТЕ

Y'ALL EAT – ВЫ ЕДИТЕ

WE EAT – МЫ ЕДИМ

THEY EAT – ОНИ ЕДЯТ

PRESENT SIMPLE

HE EATS – OH ECT
SHE EATS – OHA ECT
IT EATS – OHO ECT

PRESENT SIMPLE

I DON'T EAT – Я НЕ ЕМ
SHE DOESN'T EAT – ОНА НЕ ЕСТ

PRESENT SIMPLE

DON'T YOU EAT – ТЫ НЕ ЕШЬ?
DOESN'T SHE EAT – ОНА НЕ ЕСТ?

PRESENT SIMPLE

1) РЕГУЛЯРНЫЕ ДЕЙСТВИЯ

I OFTEN WATCH YOUTUBE

ANNA STUDIES ENGLISH EVERY SATURDAY

PRESENT SIMPLE

2) ДЕЙСТВИЕ В НАСТОЯЩЕМ

WE LIVE IN KURGAN

YOU LEARN ENGLISH

PRESENT SIMPLE

3) ОБЩЕИЗВЕСТНЫЕ ФАКТЫ

THE EARTH IS ROUND

ONE BYTE IS EIGHT BITS

PRESENT SIMPLE

SHE EATS AN APPLE
YOU PLAY THE GAME
HE LOVES HER
SHE DOESN'T LOVE HIM
THEY ARE NOT HAPPY
HE DRINKS BEER
SHE COMES TO HER MUM

PRESENT SIMPLE

THE BEER TASTES AWFUL
MUM TALKS TO HER
HE SENDS HER FLOWERS
SHE LIKES FLOWERS VERY MUCH
SHE FORGIVES HIM
THEY ARE IN LOVE AGAIN
THE STORY ENDS HERE

PRESENT SIMPLE

ЗЕМЛЯ – ТРЕТЬЯ ПЛАНЕТА ОТ СОЛНЦА

ОН ЕСТ ПИЦЦУ

ОНА СМОТРИТ ТЕЛЕВИЗОР

PRESENT SIMPLE

ОНИ УЧАТСЯ В КОЛЛЕДЖЕ

Я ХОЖУ НА РАБОТУ КАЖДЫЙ ДЕНЬ

ОНА ПРИНОСИТ МНЕ КОФЕ КАЖДОЕ УТРО

PRESENT SIMPLE

ОНИ НЕ УЧАТСЯ В КОЛЛЕДЖЕ

Я НЕ ХОЖУ НА РАБОТУ КАЖДЫЙ ДЕНЬ

ОНА НЕ ПРИНОСИТ МНЕ КОФЕ КАЖДОЕ УТРО

PRESENT SIMPLE

УЧАТСЯ ЛИ ОНИ В КОЛЛЕДЖЕ?

ХОЖУ ЛИ Я НА РАБОТУ КАЖДЫЙ ДЕНЬ?

ПРИНОСИТ ЛИ ОНА МНЕ КОФЕ КАЖДОЕ УТРО?

A WORLD OF MATHEMATICS

NUMBER

ЧИСЛО

DIGIT

ЦИФРА

+	−	×	÷	=	>	<
plus and	minus negative	times multiplied by	divided by	equals is	greater than	less than

2^3 cubed
5^2 squared
2^{10} to the 10th power
$\sqrt{9}$ the square root

$1 + 2 = 3$
$9 + 8 = 17$
$23 + 46 = 69$

$\sqrt{9} = 3$
$5^2 = 25$
$2^3 = 8$
$2^{10} = 1024$
$16 > 14$
$23 < 25$

$8-2 = 6$
$16-7 = 9$
$30-45 = -15$

$7 \times 3 = 21$
$8 \times 9 = 72$
$30 \times 4 = 120$

$6 / 2 = 3$
$72 / 9 = 8$
$100 / 4 = 25$

$$x+3=7$$

$$x^2+6x+8=0$$

$$x^3-5x^2+12=0$$

$$x^4+4x^3+6x^2+4x+1=0$$

$$(x+1)^4=0$$

$$(x+1)^4\cdot(x-1)^4=10$$

$$x+y=3$$

$$x^2+xy+y^2=0$$

$$(x-y)^{10}=(y-x)^{10}$$

$$\frac{x-y}{y-x}>\frac{y-x}{x-y}$$

$$\frac{(x-y)^2}{(y-x)^3}<\frac{x^2}{y^3}$$

COLLATZ CONJECTURE

$$f(n) = \begin{cases} \frac{n}{2} & if\ n\ is\ even \\ 3n+1 & if\ n\ is\ odd \end{cases}$$

$3 \to 10 \to 5 \to 16 \to 8 \to 4 \to 2 \to 1$

$7 \to 22 \to 11 \to 34 \to 17 \to 52 \to 26 \to 13 \to 40 \to 20 \to 10 \to \ldots$

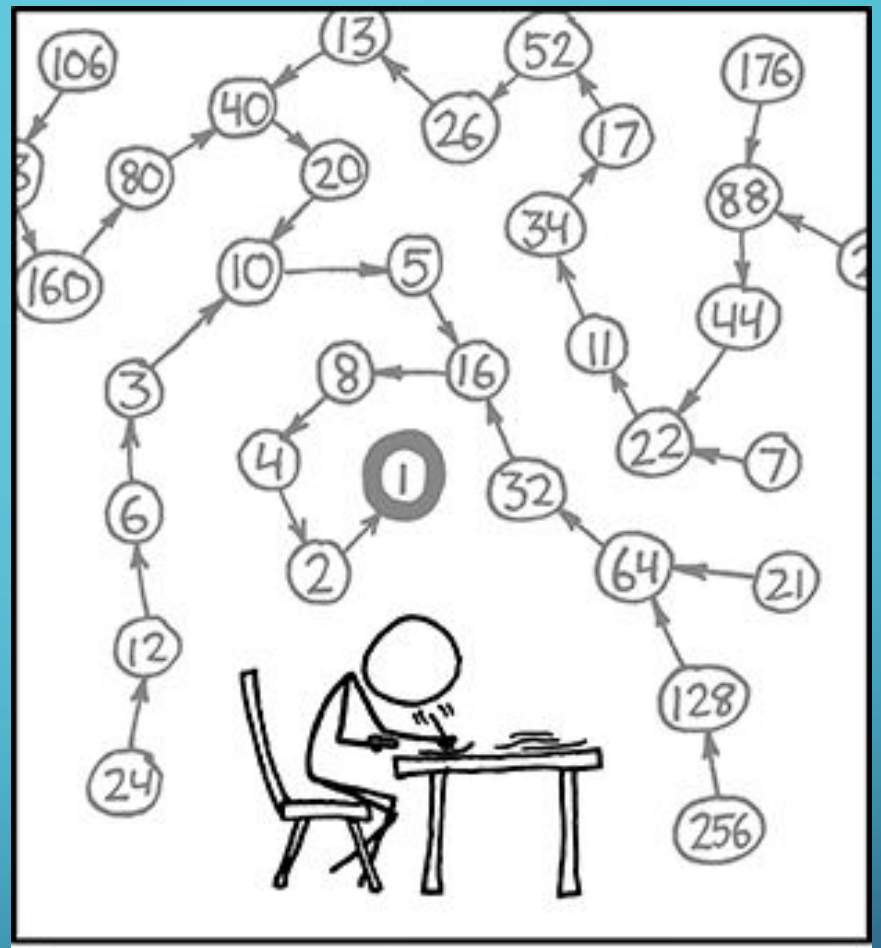
$9 \to \ldots$

$29 \to \ldots$

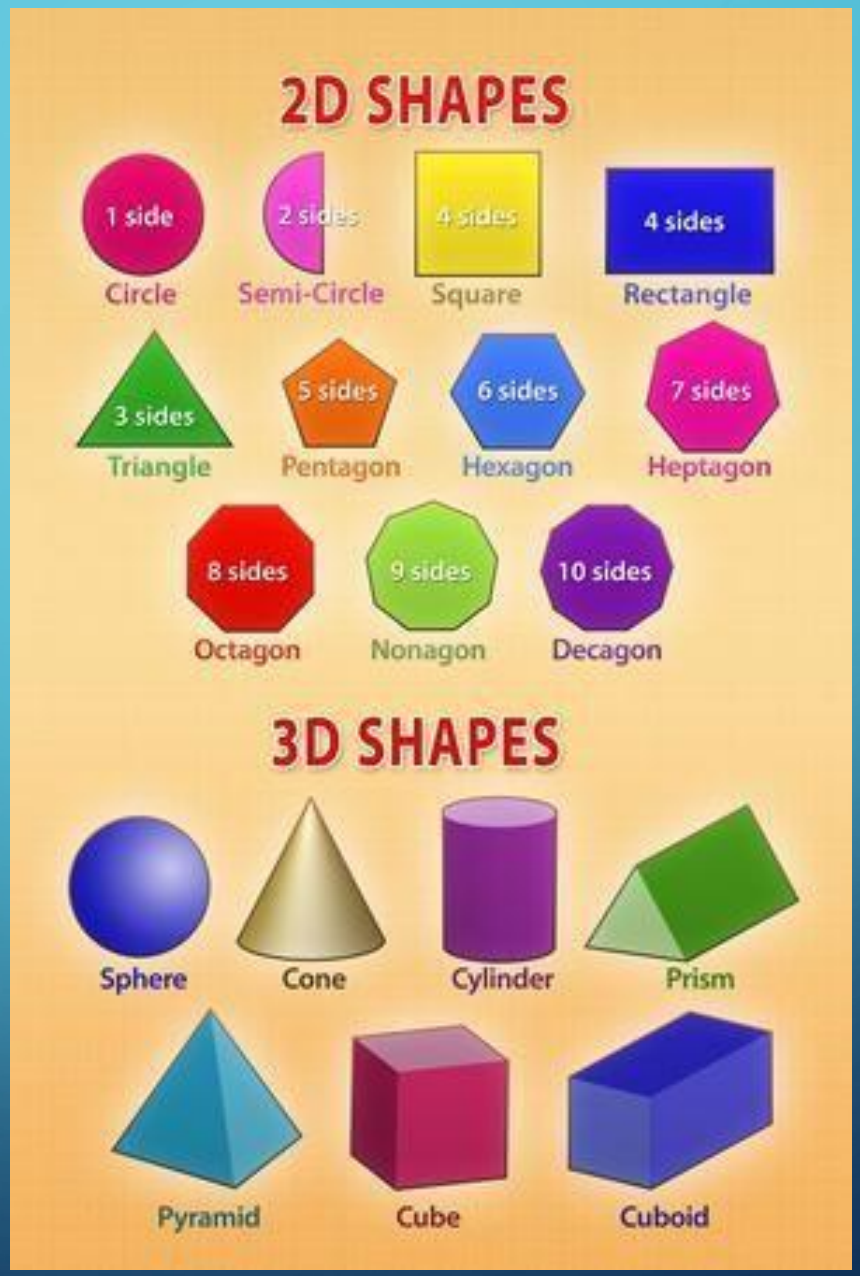
$39 \to \ldots$

27 □ ?

2200	1,524675,792578,031698	509154,959181,631323	1,016450,528385,354465	2,032901,056770,708930	696332,576119,618671	1,357746,557817,683529	2,695123,755483,442411	933024,775881,251817
2208	1,803876,225354,808991	623592,474336,403199	1,202584,150236,539327	415728,316224,268799	801722,766824,359551	277152,210816,179199	554304,421632,358398	1,076595,954863,627935
2216	2,137927,378198,292137	739072,562176,477865	1,435461,273151,503913	492715,041450,985243	985430,082901,970486	1,903695,182563,517095	656953,388601,313657	1,304150,997615,893039
2224	2,538260,243418,022793	869433,998410,595359	1,692173,495612,015195	583958,567645,612139	1,128115,663741,343463	2,167702,832285,351679	4,335405,664570,703358	1,545660,441618,836193
2232	3,008308,436643,582569		2,005538,957762,388379	4,011077,915524,776758	1,344227,109014,302703	2,674051,943683,184505	896151,406009,535135	1,792302,812019,070270
2240	597434,270673,023423	1,194868,541346,046846	398289,513782,015615	796579,027564,031230	265526,342521,343743	531052,685042,687486	1,062105,370085,374972	354035,123361,791657
2248	708070,246723,583314	236023,415574,527771	472046,831149,055542	157348,943716,351847	314697,887432,703694	104899,295810,901231	209798,591621,802462	419597,183243,604924
2256	839194,366487,209848	279731,455495,736617	559462,910991,473233	1,118925,821982,946466	372975,273994,315489	745950,547988,630977	1,491901,095977,261954	497300,365325,753985
2264	994600,730651,507969	1,942656,053739,808303	663067,153767,671979	1,326134,307535,343958	2,590208,071653,077737	884089,538356,895975	1,768179,076713,791945	589393,025571,263983
2272	1,178786,051142,527963	2,357572,102285,055926	785857,367428,351975	1,571714,734856,703950	539483,373894,066267	1,047809,823237,802633	2,095619,646475,605266	4,176412,422033,285247
2280	1,397079,764317,070177	2,794159,528634,140354	931386,509544,713451	1,862773,019089,426902	3,712366,597362,920219	1,278775,404785,934855	2,474911,064908,613479	
2288	1,655798,239190,601691	3,299881,419878,151305		2,199920,946585,434203	4,399841,893170,868406		2,933227,928780,578937	
2296	1,955485,285853,719291	3,910970,571707,438582		2,607313,714471,625721		1,810127,532127,289191	3,488760,075990,074361	
2304	2,413503,376169,718921	4,635224,381282,890171					4,120199,450029,235707	
2312	2,838518,008028,959903			3,784690,677371,946537				
2320				4,520144,802205,166831		3,013429,868136,777887		2,008953,245424,518591
2328	4,017906,490849,037182	1,339302,163616,345727	2,678604,327232,691454			3,571472,436310,255273		
2336	4,761963,248413,673697							



THE COLLATZ CONJECTURE STATES THAT IF YOU PICK A NUMBER, AND IF IT'S EVEN DIVIDE IT BY TWO AND IF IT'S ODD MULTIPLY IT BY THREE AND ADD ONE, AND YOU REPEAT THIS PROCEDURE LONG ENOUGH, EVENTUALLY YOUR FRIENDS WILL STOP CALLING TO SEE IF YOU WANT TO HANG OUT.


2D SHAPES
1 side
Circle
2 sides
Semi-Circle
4 sides
Square
4 sides
Rectangle
3 sides
Triangle
5 sides
Pentagon
6 sides
Hexagon
7 sides
Heptagon
8 sides
Octagon
9 sides
Nonagon
10 sides
Decagon
3D SHAPES
Sphere
Cone
Cylinder
Prism
Pyramid
Cube
Cuboid

RADIUS
DIAMETER
CIRCUMFERENCE

LENGTH

WIDTH

HEIGHT

VOLUME

SURFACE AREA

WHAT IS THE VOLUME OF A CIRCLE?

WHAT IS THE VOLUME OF A SPHERE?

WHAT IS THE CIRCUMFERENCE OF A CIRCLE?

WHAT IS THE VOLUME OF A CYLINDER?

WHAT IS SURFACE AREA OF A CUBOID?

WHAT IS VOLUME OF A CUBOID?

WHAT IS VOLUME OF A CUBE?

LAST ACHIEVEMENTS IN MATHEMATICS

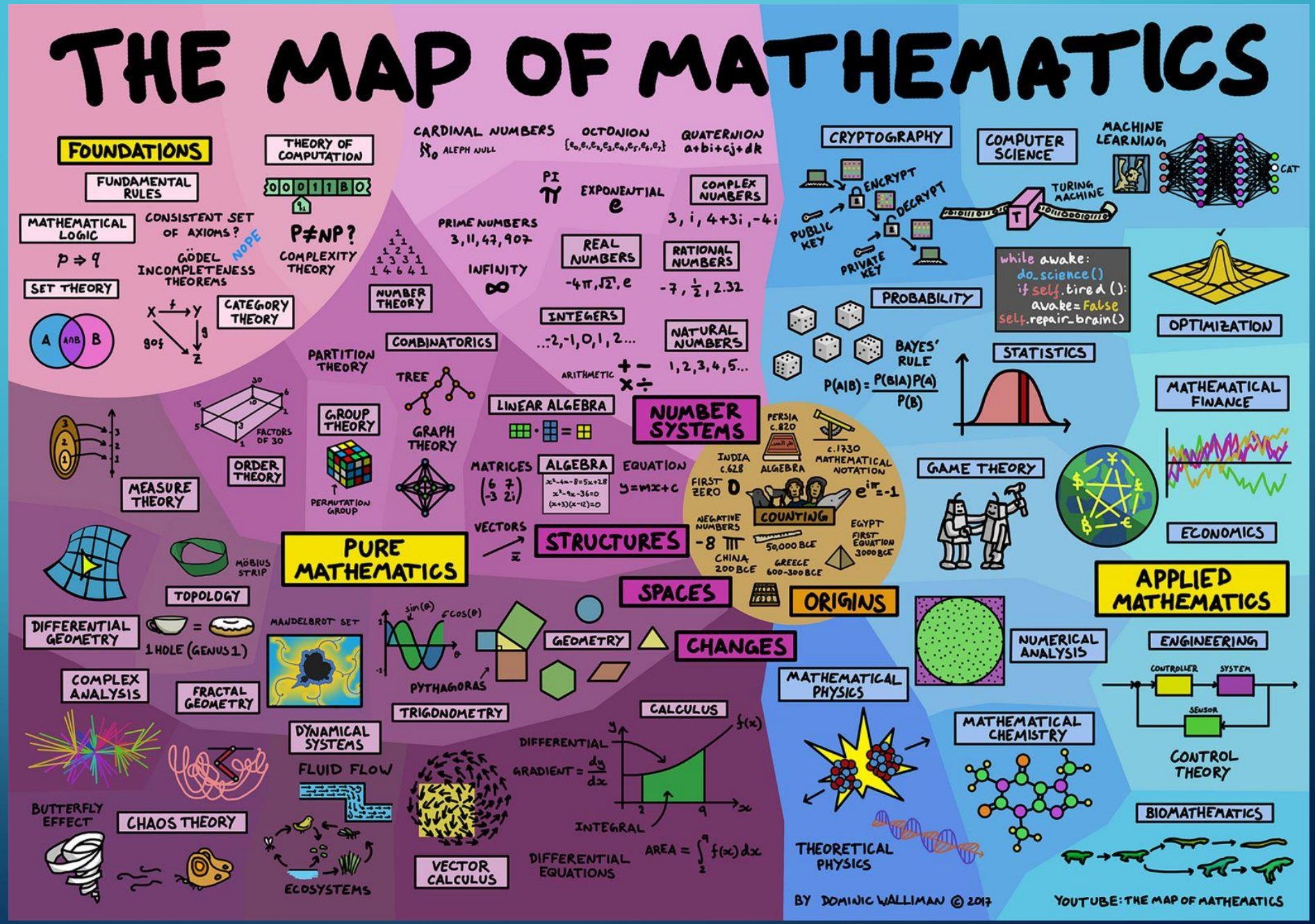
EVERYTHING IN MATHEMATICS WAS INVENTED A LONG TIME AGO?

WHEN INTEGRALS WERE INVENTED?

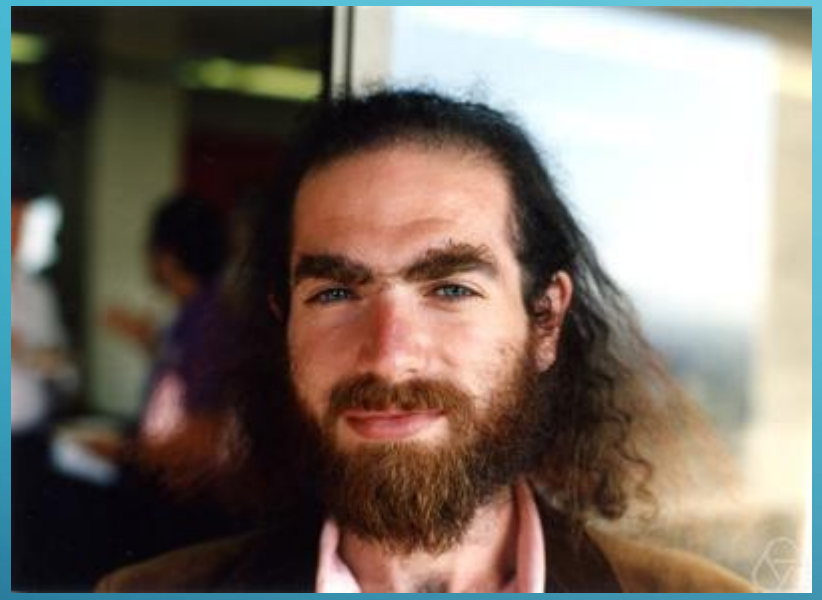
NEWTON, LEIBNIZ

1675

NEW MATHEMATICAL DISCOVERIES ARE VERY HARD TO UNDERSTAND?


THE MAP OF MATHEMATICS
FOUNDATIONS
FUNDAMENTAL RULES
MATHEMATICAL LOGIC
p ⇒ q
SET THEORY
A ∩ B
CONSISTENT SET OF AXIOMS?
NOPE
GÖDEL INCOMPLETENESS THEOREMS
CATEGORY THEORY
THEORY OF COMPUTATION
P≠NP?
COMPLEXITY THEORY
CARDINAL NUMBERS
ALEPH NULL
OCTONION
QUATERNION
a+bi+cj+dk
PI
EXPONENTIAL
COMPLEX NUMBERS
3, i, 4+3i, -4i
PRIME NUMBERS
3,11,47,907
INFINITY
REAL NUMBERS
RATIONAL NUMBERS
-7, ½, 2.32
NUMBER THEORY
INTEGERS
...-2,-1,0,1,2...
NATURAL NUMBERS
1,2,3,4,5...
ARITHMETIC
COMBINATORICS
PARTITION THEORY
TREE
GROUP THEORY
GRAPH THEORY
PERMUTATION GROUP
LINEAR ALGEBRA
NUMBER SYSTEMS
MATRICES
ALGEBRA
EQUATION
y=mx+c
FACTORS OF 30
ORDER THEORY
MEASURE THEORY
PURE MATHEMATICS
VECTORS
STRUCTURES
SPACES
CHANGES
ORIGINS
PERSIA c.820
ALGEBRA
c.1730 MATHEMATICAL NOTATION
INDIA c.628
FIRST ZERO
COUNTING
NEGATIVE NUMBERS
CHINA 200 BCE
50,000 BCE
EGYPT FIRST EQUATION 3000 BCE
GREECE 600-300 BCE
MÖBIUS STRIP
TOPOLOGY
1 HOLE (GENUS 1)
DIFFERENTIAL GEOMETRY
MANDELBROT SET
GEOMETRY
PYTHAGORAS
TRIGONOMETRY
COMPLEX ANALYSIS
FRACTAL GEOMETRY
DYNAMICAL SYSTEMS
FLUID FLOW
ECOSYSTEMS
BUTTERFLY EFFECT
CHAOS THEORY
VECTOR CALCULUS
CALCULUS
DIFFERENTIAL
GRADIENT = dy/dx
INTEGRAL
AREA = ∫ f(x) dx
DIFFERENTIAL EQUATIONS
CRYPTOGRAPHY
PUBLIC KEY
ENCRYPT
DECRYPT
PRIVATE KEY
COMPUTER SCIENCE
TURING MACHINE
MACHINE LEARNING
CAT
while awake:
do_science()
if self.tired():
awake=False
self.repair_brain()
PROBABILITY
BAYES' RULE
P(A|B) = P(B|A)P(A) / P(B)
STATISTICS
OPTIMIZATION
MATHEMATICAL FINANCE
GAME THEORY
ECONOMICS
APPLIED MATHEMATICS
NUMERICAL ANALYSIS
ENGINEERING
CONTROLLER
SYSTEM
SENSOR
CONTROL THEORY
MATHEMATICAL PHYSICS
MATHEMATICAL CHEMISTRY
BIOMATHEMATICS
THEORETICAL PHYSICS
BY DOMINIC WALLIMAN © 2017
YOUTUBE: THE MAP OF MATHEMATICS

POINCARE CONJECTURE 1904-2006



GRIGORI PERELMAN

$$X^2 + Y^2 = Z^2$$

$$3^2 + 4^2 = 5^2 \rightarrow 9 + 16 = 25$$

$$5^2 + 12^2 = 13^2 \rightarrow 25 + 144 = 169$$

$$X^3 + Y^3 = Z^3$$

?????

$$X^N + Y^N = Z^N$$

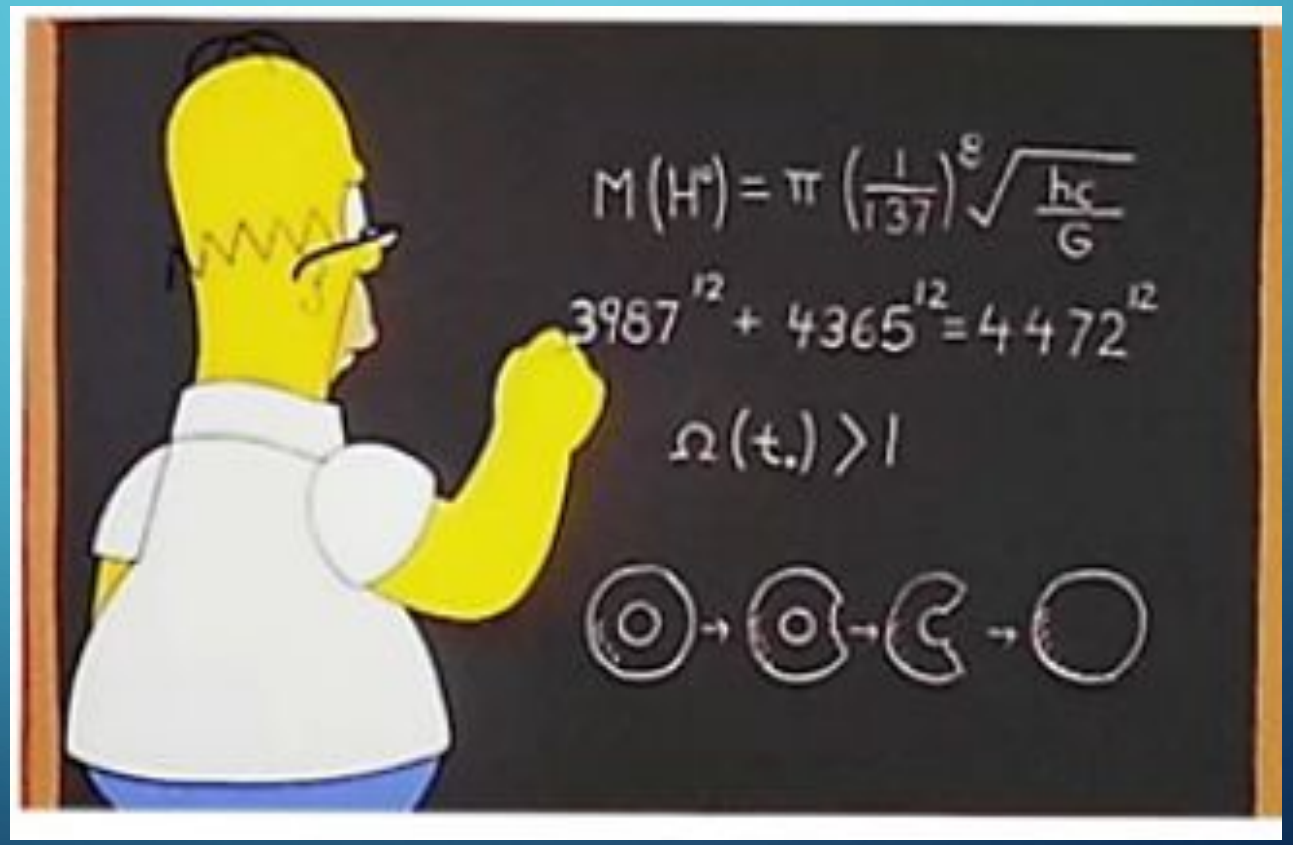
$$N > 2$$

$$A, B, C \neq 0$$

PIERRE DE FERMAT

1637

SIMPSONS


$M(H^0) = \pi \left(\frac{1}{137}\right)^8 \sqrt{\frac{hc}{G}}$
$3987^{12} + 4365^{12} = 4472^{12}$
$\Omega(t_0) > 1$

SIMPSONS

$$
\begin{aligned}
1782^{12} + 1841^{12} &= 2\,541\,210\,258\,614\,589\,176\,288\,669\,958\,142\,428\,526\,657 \approx 2{,}541\,210\,259 \cdot 10^{39}, \\
1922^{12} &= 2\,541\,210\,259\,314\,801\,410\,819\,278\,649\,643\,651\,567\,616 \approx 2{,}541\,210\,259 \cdot 10^{39}.
\end{aligned}
$$

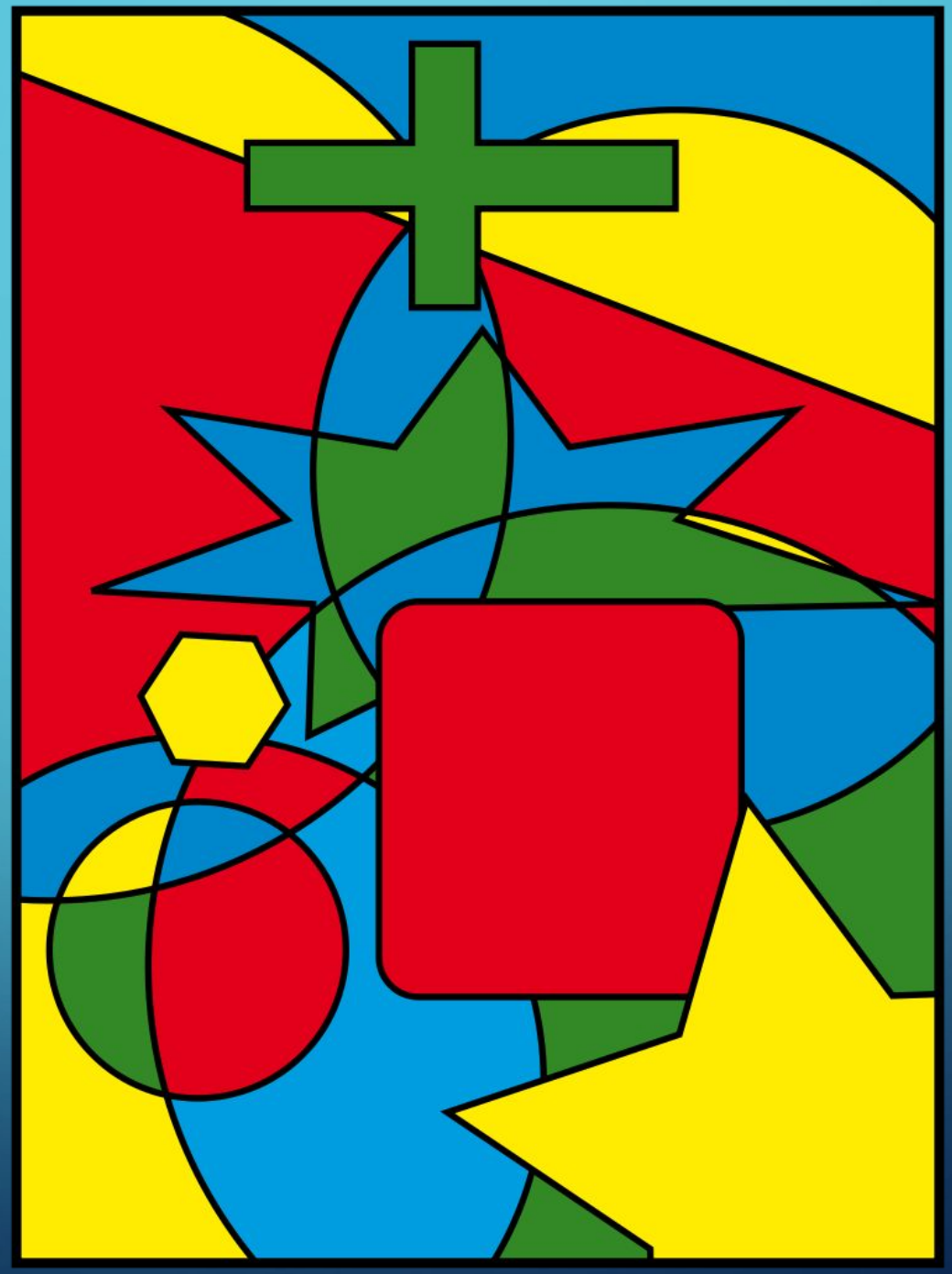
THERE ARE NO SOLUTIONS!

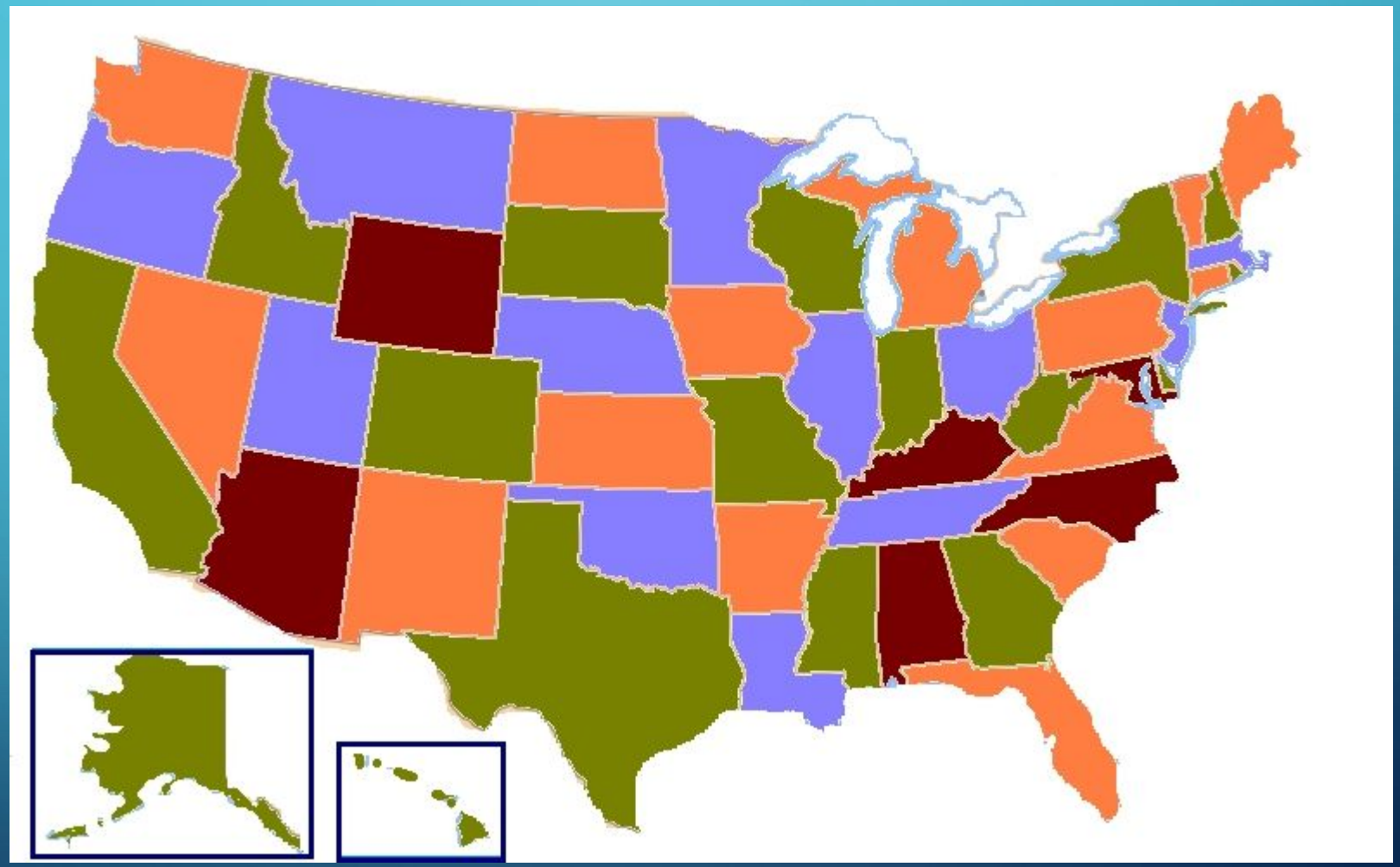
ANDREW JOHN WILES

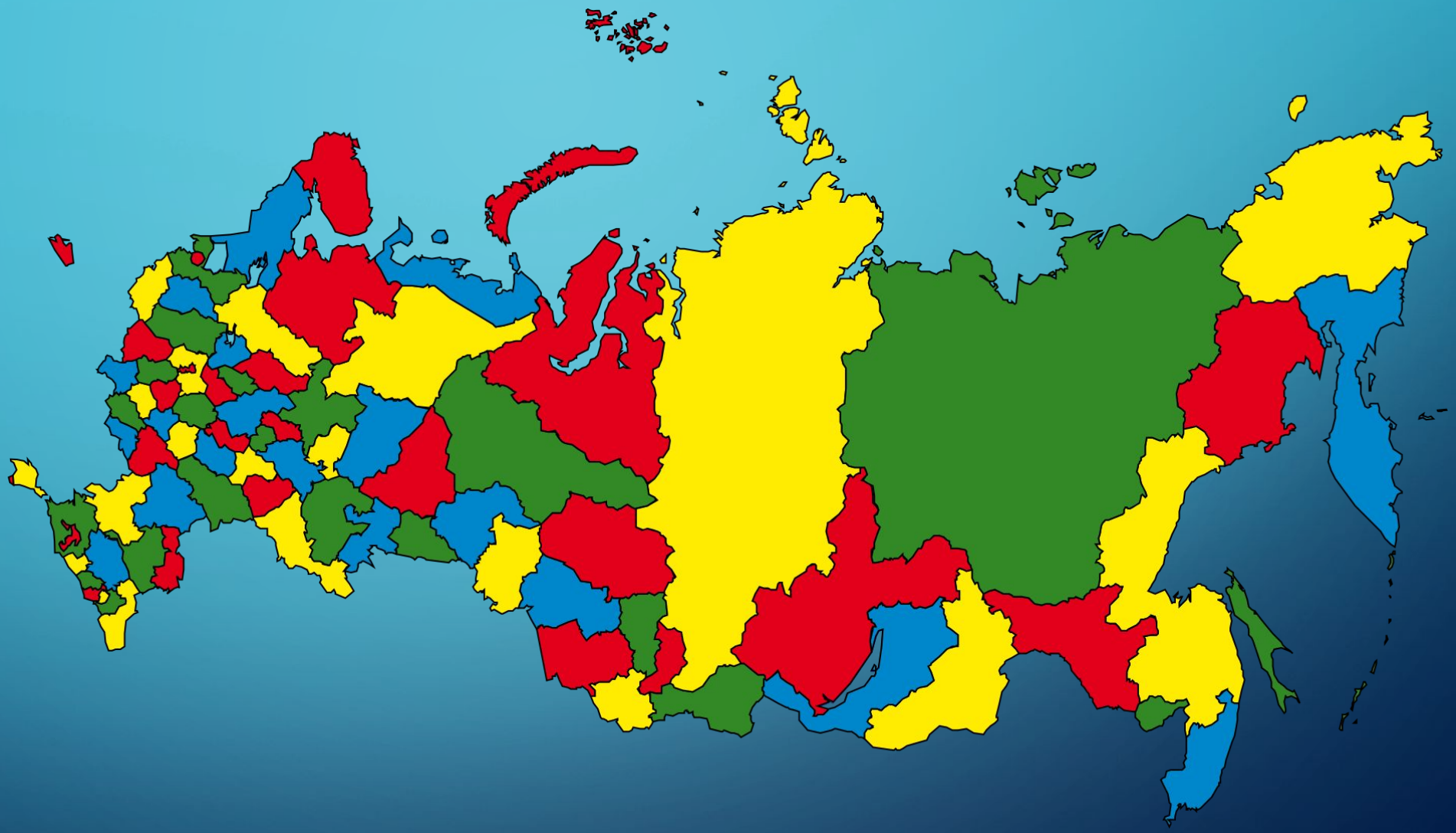
1995, 150 PAGES

FOUR COLOR THEOREM

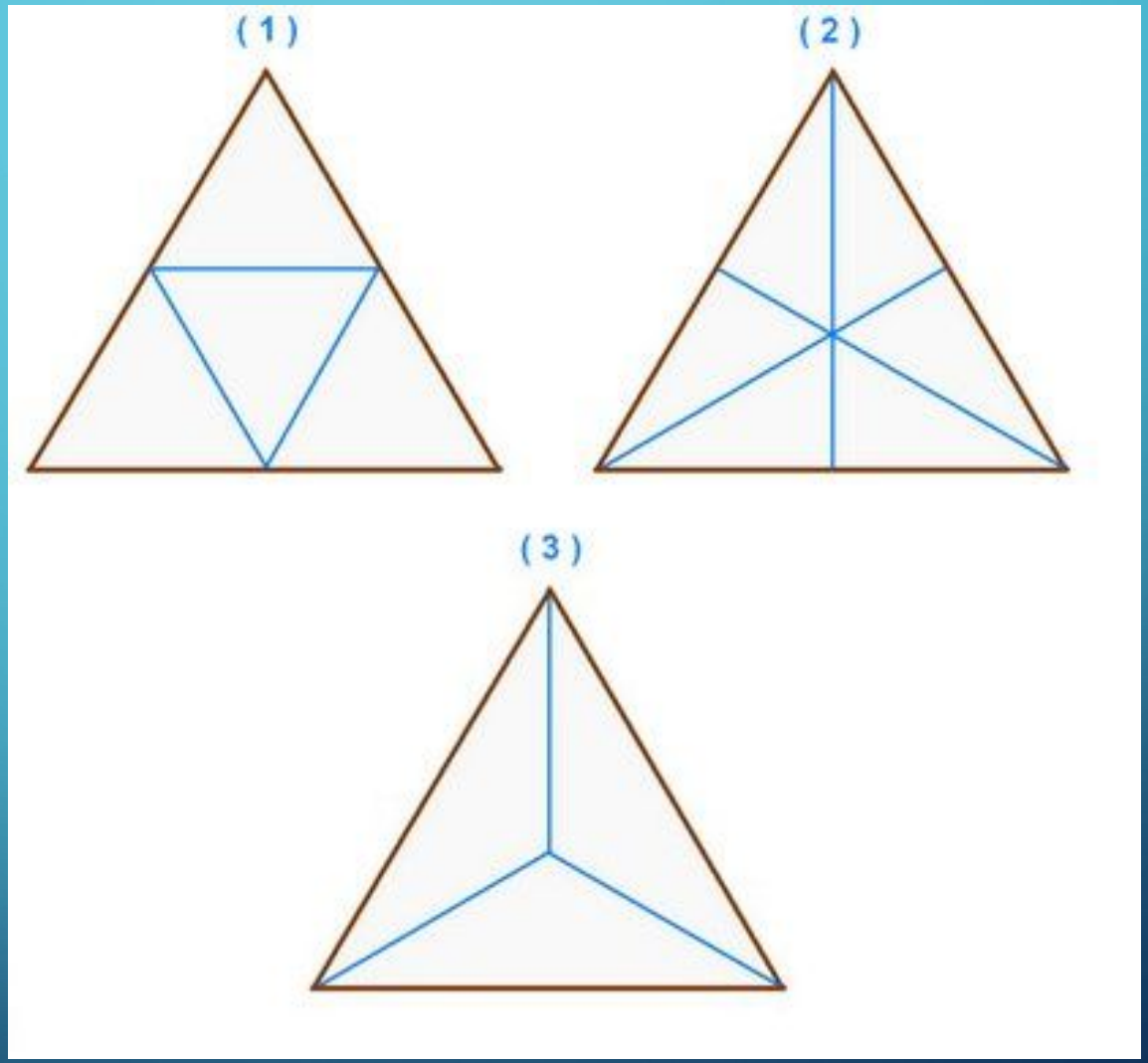
1878-1976

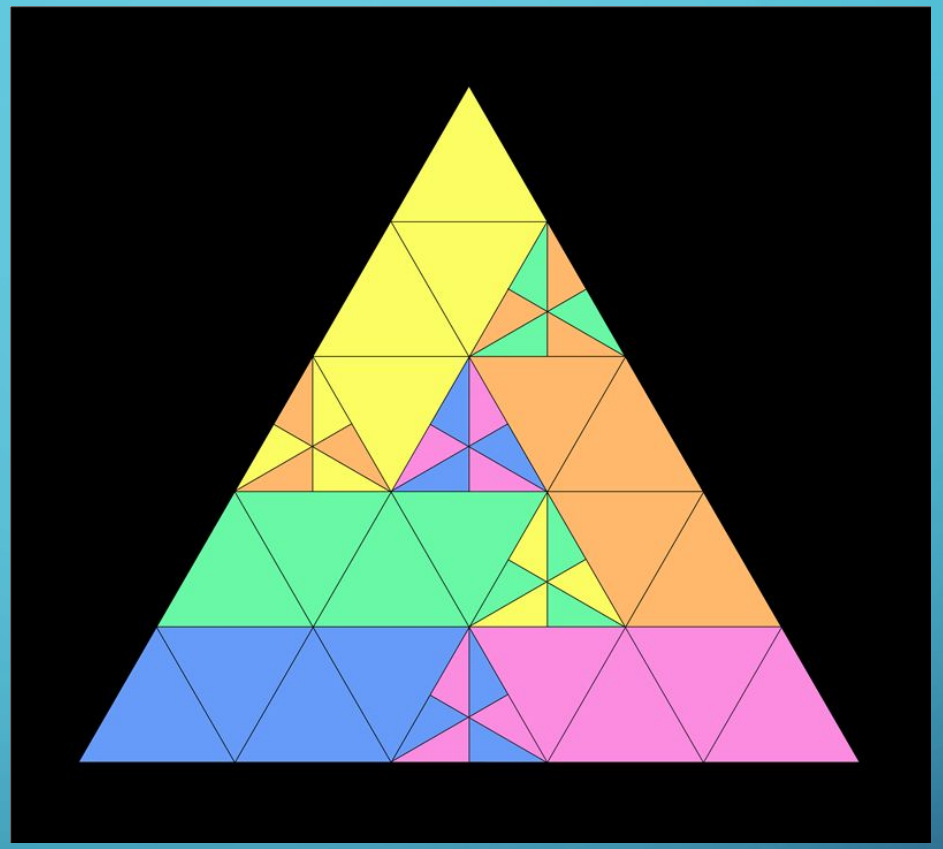






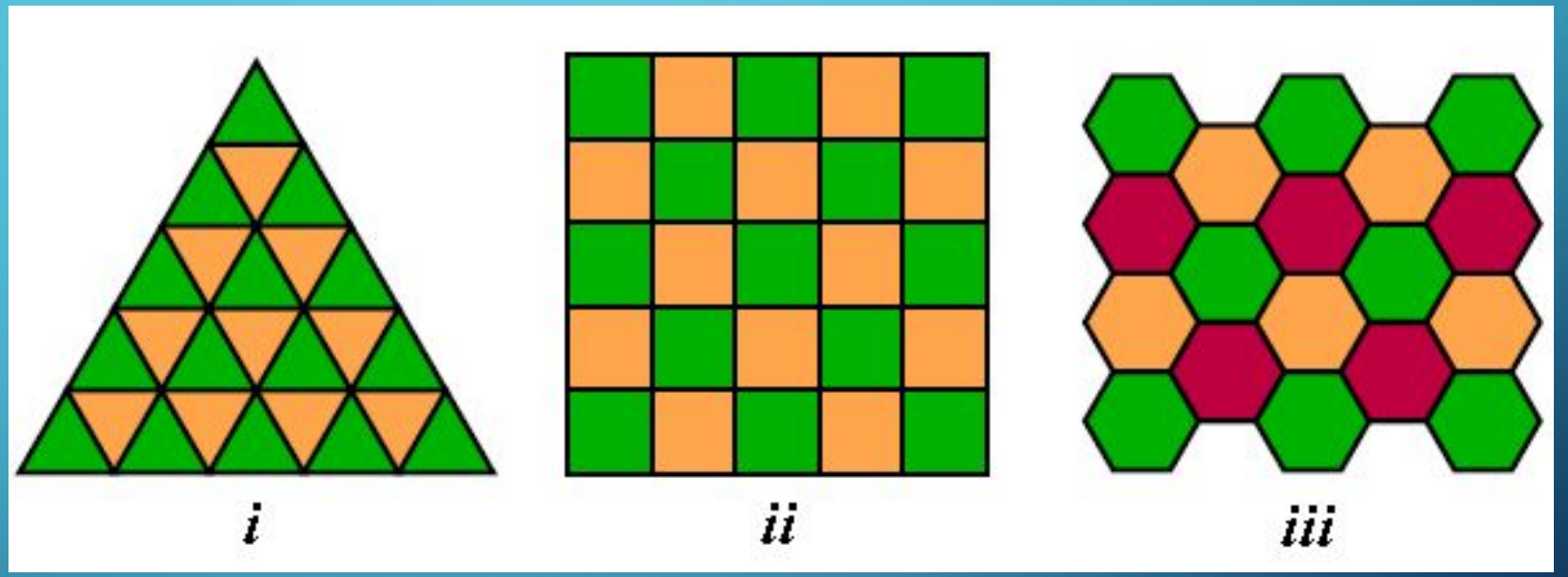
DIVIDE TRIANGLE BY 5 PARTS

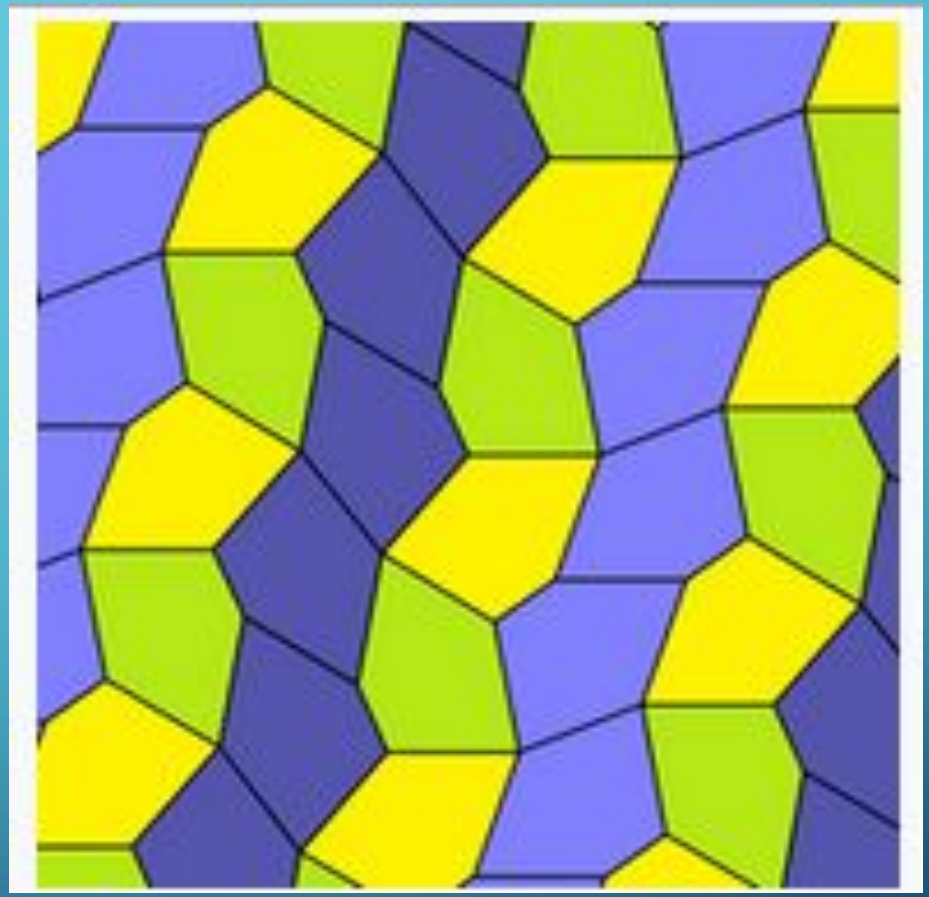

(1)
(2)
(3)



MICHAEL PATRAKEEV
YEKATERINBURG, 2015

PENTAGON TILING PROBLEM


i
ii
iii



KARL REINHARDT, 1918 – 5

RICHARD KERSHNER, 1968 □ 8

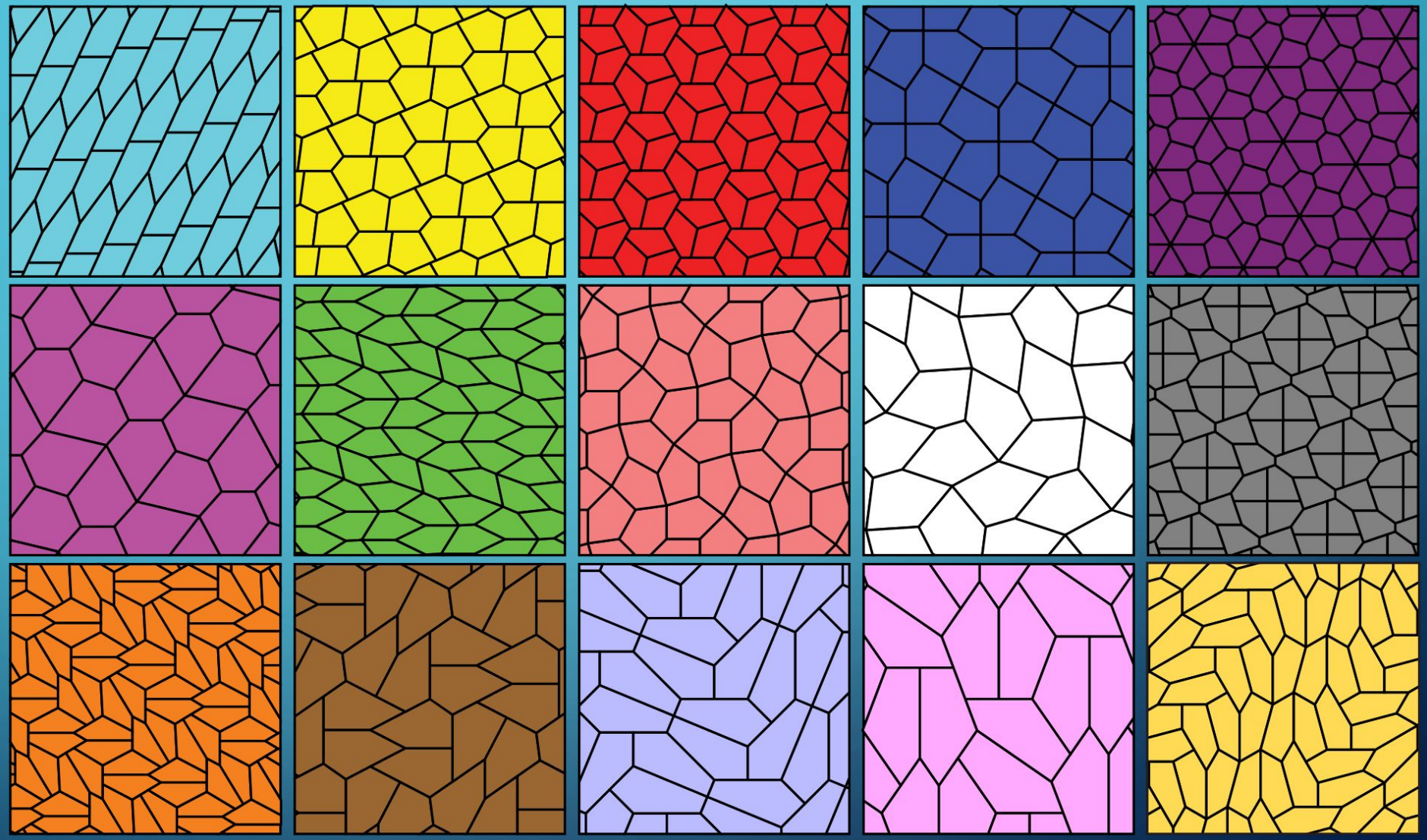
RICHARD JAMES, 1975

□ 9

MAJORIE RICE, 1976-1977 □ 10, 11, 12, 13

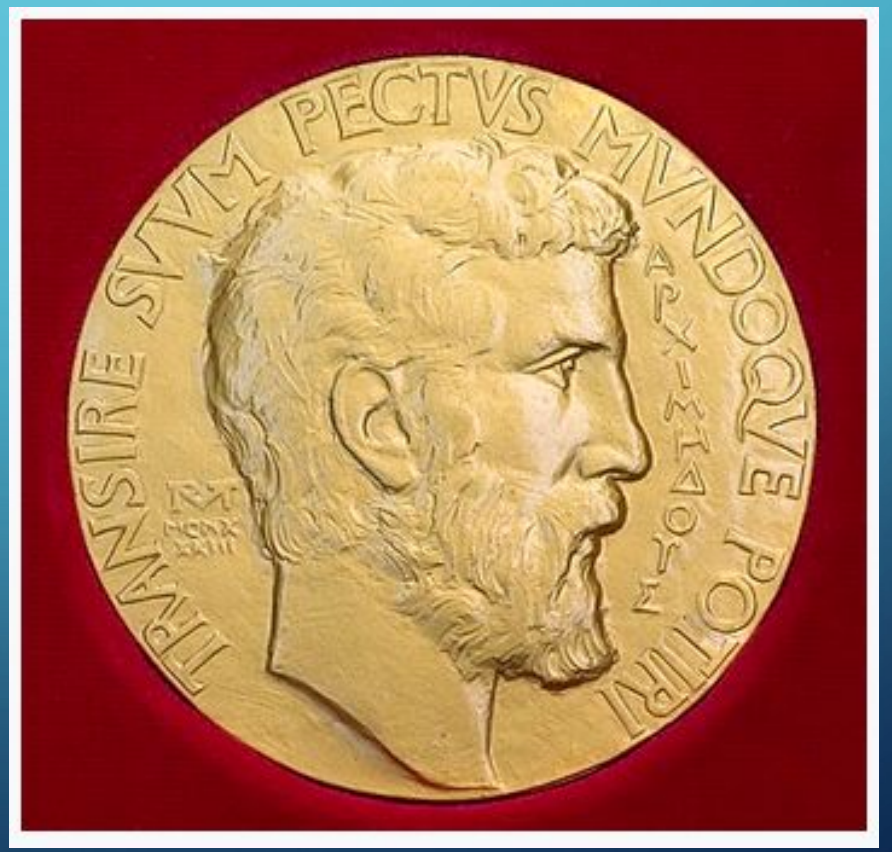
ROLF STEIN, 1985 – 14

CASEY MANN, JENNIFER MCLOUD-MANN, DAVID VON DERAU, 2015 □ 15



WHAT IS MOST VALUABLE PRIZE FOR MATHEMATICIAN?

FIELDS MEDAL: 15.000 CAD



ABEL PRIZE: 750.000 EUR

WHY NOT NOBEL PRIZE?

WHAT IS PROGRAMMERS PRIZE?

TURING AWARD
$250.000

WHAT PROGRAMMING LANGUAGE ARE MOST SUITABLE FOR MATHEMATICS?

FORTRAN / COBOL

WHY?

BIG LEGACY

Apr 2021	Apr 2020	Change	Programming Language	Ratings	Change
1	2	↑	C	14.32%	-2.40%
2	**1**	↓	**Java**	**11.23%**	**-5.49%**
3	3		Python	11.03%	+1.72%
4	4		C++	7.14%	+0.36%
5	5		C#	4.91%	+0.16%
6	6		Visual Basic	4.55%	-0.18%
7	7		JavaScript	2.44%	+0.06%
8	14	⇈	Assembly language	2.32%	+1.16%
9	8	↓	PHP	1.84%	-0.54%
10	9	↓	SQL	1.83%	-0.34%
11	19	⇈	Classic Visual Basic	1.54%	+0.71%
12	22	⇈	Delphi/Object Pascal	1.47%	+0.77%
13	13		Ruby	1.23%	-0.02%
14	12	↓	Go	1.22%	-0.13%
15	11	⇊	Swift	1.19%	-0.32%
16	10	⇊	R	1.12%	-0.42%
17	48	⇈	Groovy	1.04%	+0.86%
18	16	↓	Perl	0.99%	+0.03%
19	18	↓	MATLAB	0.99%	+0.06%
20	34	⇈	Fortran	0.91%	+0.58%

Larry Zottarelli, the last original Voyager engineer still on the project, is retiring

While there are still a few hands around who worked on the original project, now the job of keeping this now-interstellar spacecraft going will fall to someone else. And that someone needs to have some very specific skills.

Yes, it's going to require coding, but it won't be in Ruby on Rails or Python. Not C or C++. Go a little further back, to the assembly languages used in early computing. Can you breeze through Fortran? Then you might be the person for the job.

YOU HAVE A FEW TASKS AHEAD OF YOU AND ABOUT 64 KILOBYTES OF MEMORY TO WORK WITH

The stakes are especially high for the financial industry, where an estimated $3 trillion in daily commerce flows through COBOL systems. The language underpins deposit accounts, check-clearing services, card networks, ATMs, mortgage servicing, loan ledgers and other services.

The industry's aggressive push into digital banking makes it even more important to solve the COBOL dilemma. Mobile apps and other new tools are written in modern languages that need to work seamlessly with old underlying systems.

That is where COBOL specialists come in.

R

WHY?

IT'S COMPLEX

Apr 2021	Apr 2020	Change	Programming Language	Ratings	Change
1	2	↑	C	14.32%	-2.40%
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13	13		Ruby	1.23%	-0.02%
14	12	↓	Go	1.22%	-0.13%
15	11	⇊	Swift	1.19%	-0.32%
16	10	⇊	R	1.12%	-0.42%
17	48	⇈	Groovy	1.04%	+0.86%
18	16	↓	Perl	0.99%	+0.03%
19	18	↓	MATLAB	0.99%	+0.06%
20	34	⇈	Fortran	0.91%	+0.58%

R

statisticians are utilizing R for its incredible statistical computing power. R is an open-source programming language, which makes it even more appealing.

Mathematical data miners are also known for using R because you can make all sorts of programs for running through data quickly and mining data without any extra work involved. Because of this, the popularity of R has increased quite a bit in recent years.

```r
# R program for matrix multiplication

# Creating matrices
m <- matrix(1:8, nrow=2)
n <- matrix(8:15, nrow=4)

# Multiplying matrices using operator
print(m %*% n)
```

PYTHON

WHY?

NUMPY / SCIPY

Apr 2021	Apr 2020	Change	Programming Language	Ratings	Change
1	2	↑	C	14.32%	-2.40%
2	**1**	↓	**Java**	**11.23%**	**-5.49%**
3	3		Python	11.03%	+1.72%
4	4		C++	7.14%	+0.36%
5	5		C#	4.91%	+0.16%
6	6		Visual Basic	4.55%	-0.18%
7	7		JavaScript	2.44%	+0.06%
8	14	⇈	Assembly language	2.32%	+1.16%
9	8	↓	PHP	1.84%	-0.54%
10	9	↓	SQL	1.83%	-0.34%
11	19	⇈	Classic Visual Basic	1.54%	+0.71%
12	22	⇈	Delphi/Object Pascal	1.47%	+0.77%
13	13		Ruby	1.23%	-0.02%
14	12	↓	Go	1.22%	-0.13%
15	11	⇊	Swift	1.19%	-0.32%
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19	18	↓	MATLAB	0.99%	+0.06%
20	34	⇈	Fortran	0.91%	+0.58%

What is NumPy?

NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, various derived objects (such as masked arrays and matrices), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete Fourier transforms, basic linear algebra, basic statistical operations, random simulation and much more.

SciPy library

. It provides many user-friendly and
efficient numerical routines, such as routines for numerical integration, interpolation, optimization, linear algebra, and statistics.

```
# iterate through rows of X
for i in range(len(X)):
   # iterate through columns of Y
   for j in range(len(Y[0])):
       # iterate through rows of Y
       for k in range(len(Y)):
           result[i][j] += X[i][k] * Y[k][j]
```

C

WHY?

IT'S FAST

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1	2	↑	C	14.32%	-2.40%
2	**1**	↓	**Java**	**11.23%**	**-5.49%**
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C

C and C++ provide multiple uses, so you're not only going to find these in the math field. In fact, they are more general in terms of programming, but they stand strong for mathematical programs.

Overall, C has a solid reputation when you're trying to get something done quickly. The processing speed is one of its best qualities, seeing as how many students are known to write small C programs in order to process repetitious problems.

```
void multiplyMatrices(int firstMatrix[][10], int secondMatrix[][10], int mult[][10], int
{
        int i, j, k;

        // Initializing elements of matrix mult to 0.
        for(i = 0; i < rowFirst; ++i)
        {
                for(j = 0; j < columnSecond; ++j)
                {
                        mult[i][j] = 0;
                }
        }

        // Multiplying matrix firstMatrix and secondMatrix and storing in array mult.
        for(i = 0; i < rowFirst; ++i)
        {
                for(j = 0; j < columnSecond; ++j)
                {
                        for(k=0; k<columnFirst; ++k)
                        {
                                mult[i][j] += firstMatrix[i][k] * secondMatrix[k][j];
                        }
                }
        }
}
```

ASSEMBLY

WHY?

IT'S EVEN FASTER

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1	2	↑	C	14.32%	-2.40%
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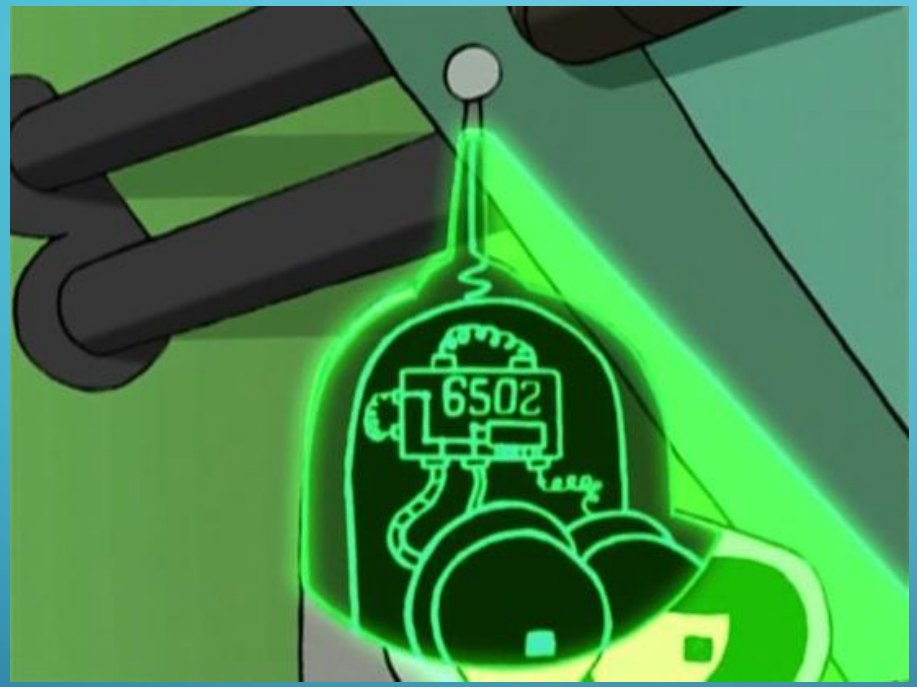
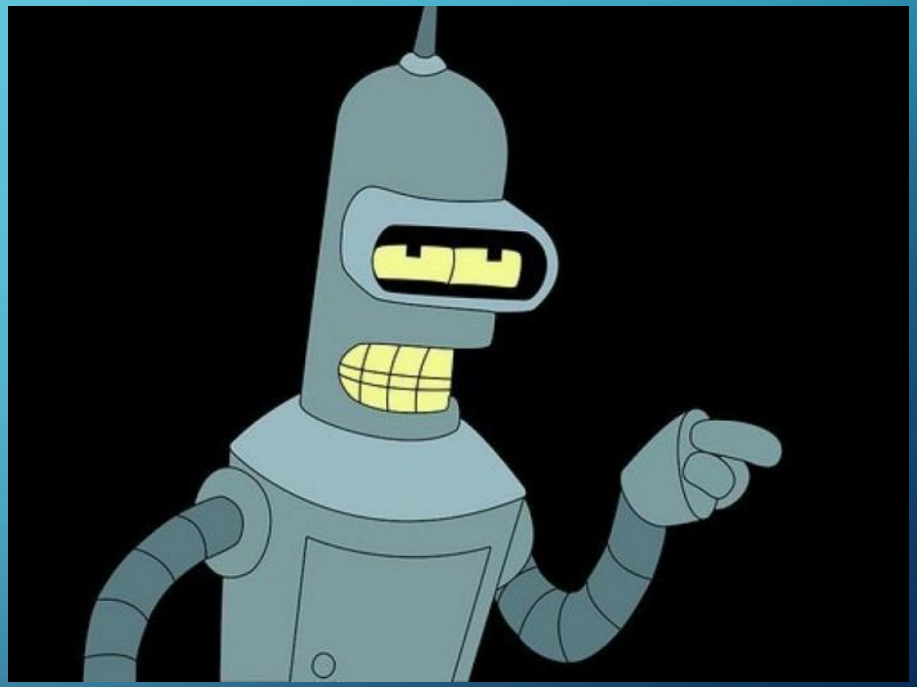
19	18	↓	MATLAB	0.99%	+0.06%
20	34	⇈	Fortran	0.91%	+0.58%

```
mulMatrix:
        enter 0,0
        ;+8: address of c,+12: address of b
        ;+16: address of a,+20: rows in 1
        ;+22: cols/rows in 1/2,+24: cols in 2
        ;+26: size of a,+28: size of b

segment .data
        i dw 0
        j dw 0
        k dw 0
        sum dw 0
        ind1 dd 0
        ind2 dd 0

segment .text

        mov eax,[ebp+16]
        mov ebx,[ebp+12]
        mov ecx,[ebp+8]
        mulLoop:
                xor dx,dx
                mov word[j],dx

                mulLoopRow:
                        xor dx,dx
                        mov word[k],dx
                        mov word[sum],dx
                        mulLoopAdd:
                                mov dx,word[i]
                                imul dx,[ebp+22]
                                add dx,word[k]
                                mov [ind1],dx
                                mov dx,word[k]
                                imul dx,[ebp+24]
                                add dx,word[j]
                                mov [ind2],dx

                                add eax,[ind1]
                                add eax,[ind1]
                                add ebx,[ind2]
                                add ebx,[ind2]

                                mov dx,[eax]
                                imul dx,[ebx]
                                add [sum],dx

                                sub eax,[ind1]
                                sub ebx,[ind2]
                                sub eax,[ind1]
                                sub ebx,[ind2]

                                inc word[k]
                                mov dx,word[k]
                                cmp dx,[ebp+22]
                        jne mulLoopAdd

                        mov dx,word[sum]
                        mov word[ecx],dx
                        add ecx,2
                        inc word[j]
                        mov dx,word[j]
                        cmp dx,[ebp+24]
                jne mulLoopRow
                inc word[i]
                mov dx,word[i]
                cmp dx,[ebp+20]
        jne mulLoop
        mulLoop_end:
                leave
                ret 18
```

8 ••••••••••••••••••
9
10 ORG $4000
11 A1 = $3C
12 A2 = $3E
13 A4 = $42
14 AUXMOVE = $C311
15
16 ••••••••••••••••••••••••••••
17 • SETUP - move data for VTOC
18 • and catalog to auxmem at
19 • B000-B3FF (pseudo trk 11
20 • 0-3)
21 ••••••••••••••••••••••••••
22 SETUP LDA #<VTOC
23 STA A1
24 LDA #>VTOC
25 STA A1+1
26 LDA #<END
27 STA A2
28 LDA #>END
29 STA A2+1
30 LDA #$00
31 STA A4
32 LDA #$B0
33 STA A4+1
34 SEC
35 JMP AUXMOVE
36


6502



NON-SOLVED PROBLEMS IN MATHEMATICS

ARE THERE ANY EASY TO UNDERSTAND MATHEMATICAL PROBLEMS WHICH ARE NOT SOLVED YET?

FACTORIZE THIS NUMBER

```
RSA-896 = 412023436986659543855531365332575948179811699844327982845455626433876445565248426198098870423161841879261420247188869492560931776375033421130982397485150944909106910269861031862704114880866970564902903653658867433731720813104105190864254793282601391257624033946373269391
```

GET $75.000

SOLVE THIS EQUATION

$$\hat{H}\psi = E\psi,$$

PROVE P = NP (OR NOT)

GET $1.000.000

$$x^7 - 23\,x^6 + 222\,x^5 - 1160\,x^4 + 3520\,x^3 - 6144\,x^2 + 5632\,x - 2048 = 0$$

$$x = 1$$

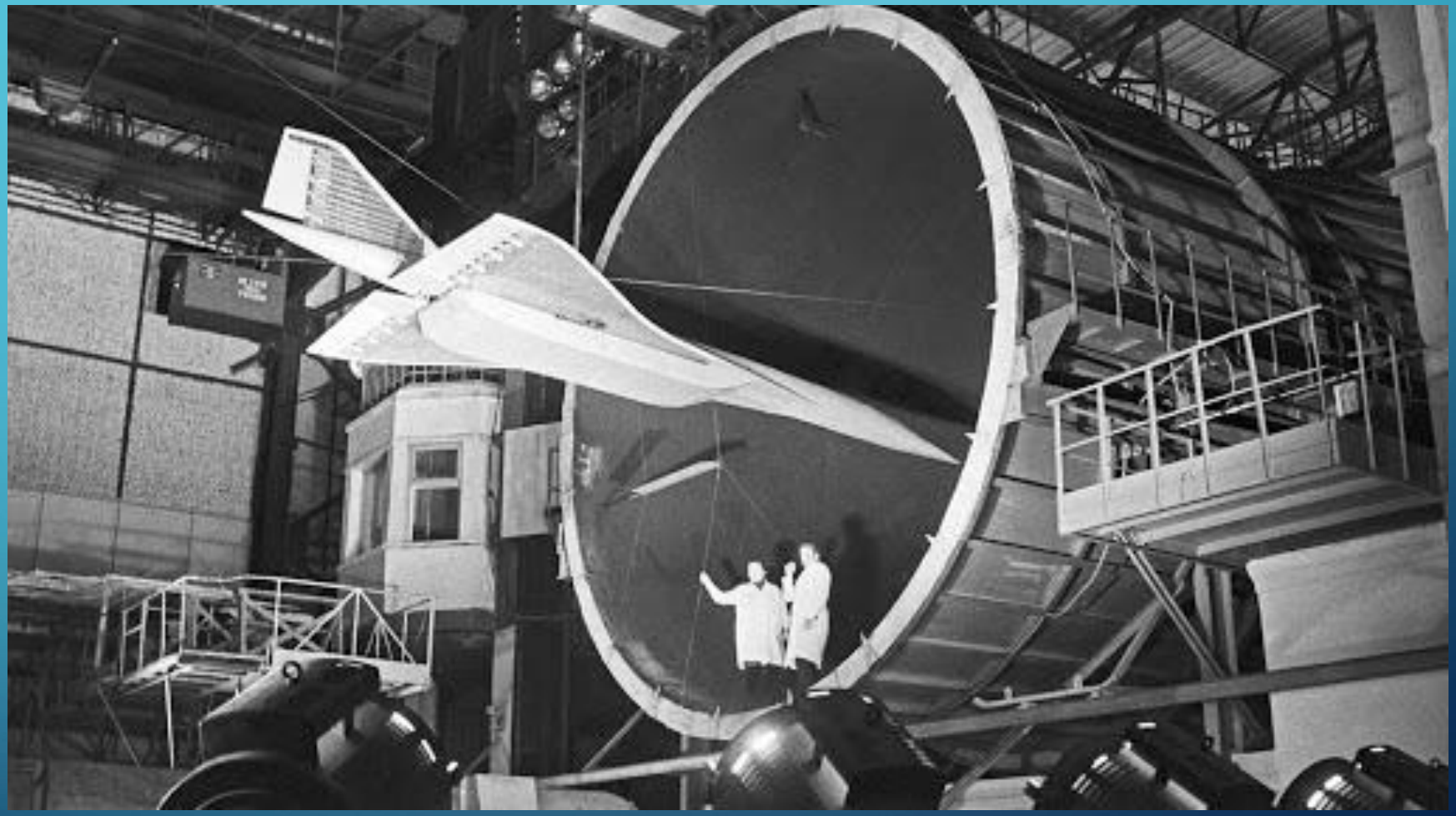
$$x = 2$$

$$x = 4$$

SOLVE THIS EQUATION

$$\rho\left(\frac{\partial v_i}{\partial t}+v_k\frac{\partial v_i}{\partial x_k}\right)=-\frac{\partial p}{\partial x_i}+\frac{\partial}{\partial x_k}\left\{\eta\left(\frac{\partial v_i}{\partial x_k}+\frac{\partial v_k}{\partial x_i}-\frac{2}{3}\delta_{ik}\frac{\partial v_l}{\partial x_l}\right)\right\}+\frac{\partial}{\partial x_k}\left(\zeta\frac{\partial v_l}{\partial x_l}\delta_{ik}\right),$$

GET $2.000.000



SOLVE ANY OF THESE PROBLEMS AND YOU WILL BE RICH

ЛИБО СТАНЬТЕ ЧЕМПИОНОМ ПО BRAWL STARS