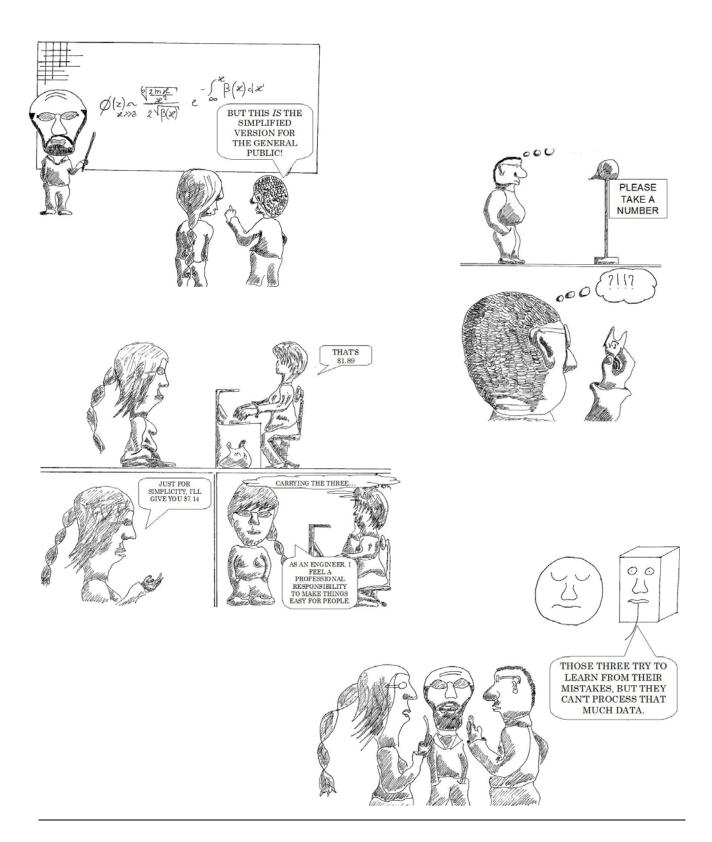


$x^4 - 8208x^3 + 25262264x^2 - 34553414592x + 17721775541520 = 0$





Rudi Mathematici January

	1	F	(1894) Satyendranath BOSE	
			(1878) Agner Krarup ERLANG	
			(1912) Boris GNEDENKO	
	_	~	(1803) Guglielmo LIBRI Carucci dalla Sommaja	
	2	\mathbf{S}	(1822) Rudolf Julius Emmanuel CLAUSIUS	
			(1938) Anatoly SAMOILENKO	
	9	e	(1905) Lev Genrichovich SHNIRELMAN (1917) Yuri Alexeievich MITROPOLSHY	
1	<u>3</u> 4	S M	(1917) Furl Alexelevich MITROPOLSH Y (1643) Isaac NEWTON	DM071
1	4 5	T	(1843) Isaac NEW ION (1871) Federigo ENRIQUES	RM071 RM084
	0		(1871) Gino FANO	101004
			(1838) Marie Ennemond Camille JORDAN	
Ì	6	W	(1807) Jozeph Mitza PETZVAL	
			(1841) Rudolf STURM	
	7	Т	(1871) Felix Edouard Justin Emile BOREL	
			(1907) Raymond Edward Alan Christopher PALEY	
	8	\mathbf{F}	(1924) Paul Moritz COHN	
			(1888) Richard COURANT	
	_	~	(1942) Stephen William HAWKING	
	9	\mathbf{S}	(1864) Vladimir Adreievich STELKOV	
	10	\mathbf{S}	(1905) Ruth MOUFANG	
2	11	М	(1875) Issai SCHUR (1545) Guidobaldo DEL MONTE	RM120
z	11	IVI	(1734) Achille Pierre Dionis DU SEJOUR	RM120
			(1707) Vincenzo RICCATI	
	12	Т	(1906) Kurt August HIRSCH	
	13	Ŵ	(1876) Luther Pfahler EISENHART	
			(1876) Erhard SCHMIDT	
			(1864) Wilhelm Karl Werner Otto Fritz Franz WIEN	
	14	Т	(1902) Alfred TARSKI	RM096
	15	\mathbf{F}	(1704) Johann CASTILLON	
			(1850) Sofia Vasilievna KOVALEVSKAJA	
		a	(1717) Mattew STEWART	
	16	S	(1801) Thomas KLAUSEN	
	17	\mathbf{S}	(1858) Gabriel KOENIGS (1847) Nikolay Egorovich ZUKOWSKY	
3	18	М	(1856) Luigi BIANCHI	
0	10	141	(1880) Paul EHRENFEST	
	19	Т	(1813) Rudolf Friedrich Alfred CLEBSCH	
			(1879) Guido FUBINI	
			(1908) Aleksandr Gennadievich KUROS	
	20	W	(1775) Andrè Marie AMPERE	
			(1904) Renato CACCIOPPOLI	RM072
		_	(1895) Gabor SZEGO	
	21	Т	(1915) Yuri Vladimirovich LINNIK	
		T.	(1846) Pieter Hendrik SCHOUTE	
	22	F	(1592) Pierre GASSENDI (1908) Lev Davidovich LANDALL	BMOG 5
	23	\mathbf{S}	(1908) Lev Davidovich LANDAU (1840) Ernst ABBE	RM063
	40	5	(1840) Ernst ABBE (1862) David HILBERT	RM060
	24	\mathbf{S}	(1891) Abram Samoilovitch BESICOVITCH	1011000
	-1	2	(1914) Vladimir Petrovich POTAPOV	
4	25	М	(1627) Robert BOYLE	
	-	-	(1736) Joseph-Louis LAGRANGE	RM048
			(1843) Karl Herman Amandus SCHWARTZ	
	26	Т	(1799) Benoit Paul Emile CLAPEYRON	
	27	W	(1832) Charles Lutwidge DODGSON	RM108
	28	Т	(1892) Carlo Emilio BONFERRONI	
	a -	-	(1701) Charles Marie de LA CONDAMINE	
	29	\mathbf{F}	(1888) Sidney CHAPMAN	
	9.0	C	(1817) William FERREL	
	30 21	S	(1619) Michelangelo RICCI	
	31	\mathbf{S}	(1715) Giovanni Francesco FAGNANO dei Toschi (1896) Sofia Alexandrovna JANOWSKAJA	
			(1896) Sona Alexandrovna JANOWSKAJA (1841) Samuel LOYD	
L				

4th IMO (1962) - 1

Find the smallest natural number with 6 as the last digit, such that if the final 6 is moved to the front of the number it is multiplied by 4.

Gauss Facts (Heath & Dolphin)

Gauss can trisect an angle with a straightedge and compass.

Gauss can get to the other side of a Möbius strip.

From a Serious Place

Q: What is lavender and commutes?

A: An abelian semigrape.

The description of right lines and circles, upon which geometry is founded, belongs to mechanics. Geometry does not teach us to draw these lines, but requires them to be drawn.

Isaac NEWTON

Mathematics is a game played according to certain simple rules with meaningless marks on paper.

Physics is becoming too difficult for the physicists.

David HILBERT

Father of Chemistry and Uncle of the Earl of Cork.

Robert BOYLE [On his tombstone]

What I tell you three times is true.

Charles Lutwidge DOGSON

If you are afraid of something, measure it, and you will realize it is a mere triple.

Renato CACCIOPPOLI

Probabilities must be regarded as analogous to the measurement of physical magnitudes: they can never be known exactly, but only within certain approximation.

Emile BOREL

God not only plays dice. He also sometimes throws the dice where they cannot be seen. Stephen HAWKING

The proof of the Hilbert Basis Theorem is not mathematics: it is theology.

Camille JORDAN

A mathematician's reputation rests on the number of bad proofs he has given. Abram BESICOVITCH



Rudi Mathematici **February**

		-		
5	1	м	(1900) John Charles BURKILL	
	2	Т	(1522) Lodovico FERRARI	
	3	W	(1893) Gaston Maurice JULIA	RM073
	4	Т	(1905) Eric Cristopher ZEEMAN	
	5	\mathbf{F}	(1757) Jean Marie Constant DUHAMEL	
	6	\mathbf{S}	(1612) Antoine ARNAULD	
			(1695) Nicolaus (II) BERNOULLI	RM093
			(1465) Scipione del Ferro	RM064
	7	\mathbf{S}	(1883) Eric Temple BELL	
			(1877) Godfried Harold HARDY	RM049
6	8	Μ	(1700) Daniel BERNOULLI	RM093
			(1875) Francis Ysidro EDGEWORTH	
	9	Т	(1775) Farkas Wolfgang BOLYAI	
			(1907) Harod Scott MacDonald COXETER	RM09
	10	W	(1747) AIDA Yasuaki	RM12
	11	Т	(1839) Josiah Willard GIBBS	
			(1915) Richard Wesley HAMMING	
			(1800) William Henry Fox TALBOT	
	12	\mathbf{F}	(1914) Hanna CAEMMERER NEUMANN	
	13	\mathbf{S}	(1805) Johann Peter Gustav Lejeune DIRICHLET	
	14	\mathbf{S}	(1849) Hermann HANKEL	
			(1896) Edward Artur MILNE	
			(1468) Johann WERNER	
7	15	Μ	(1564) Galileo GALILEI	RM08
			(1946) Douglas HOFSTADTER	
			(1861) Alfred North WHITEHEAD	
	16	Т	(1822) Francis GALTON	
			(1853) Georgorio RICCI-CURBASTRO	
			(1903) Beniamino SEGRE	
	17	W	(1890) Sir Ronald Aymler FISHER	
			(1891) Adolf Abraham Halevi FRAENKEL	
	18	Т	(1404) Leon Battista ALBERTI	
	19	\mathbf{F}	(1473) Nicolaus COPERNICUS	
	20	\mathbf{S}	(1844) Ludwig BOLTZMANN	RM06
	21	\mathbf{S}	(1591) Girard DESARGUES	
			(1915) Evgenni Michailovitch LIFSHITZ	
8	22	Μ	(1903) Frank Plumpton RAMSEY	
	23	Т	(1951) Shigefumi MORI	
			(1583) Jean-Baptiste MORIN	
	24	W	(1871) Felix BERNSTEIN	
	25	Т	(1827) Henry WATSON	
	26	\mathbf{F}	(1786) Dominique Francois Jean ARAGO	
	27	\mathbf{s}	(1881) Luitzen Egbertus Jan BROUWER	
	28	$\tilde{\mathbf{s}}$	(1735) Alexandre Theophile VANDERMONDE	
			(1860) Herman HOLLERITH	RM10

4th IMO (1962) - 2 Find all real *x* satisfying: $\sqrt{3-x} - \sqrt{x+1} > 1/2$ 4th IMO (1962) - 4 Find all real solutions to $\cos^2 x + \cos^2 2x + \cos^2 3x = 1.$ Gauss Facts (Heath & Dolphin) "Uncountably Infinite" was a phrase coined to explain the intelligence of Gauss. There are no Fermat Primes greater than 65,537 because Gauss saw that Fermat was on to something, and well... he put an end to that. From a Serious Place Q: What's an abelian group under addition. closed, associative, distributive and bears a curse? A: The Ring of the Nibelung. Technical skill is mastery of complexity while creativity is mastery of simplicity. Eric Christopher ZEEMAN No Roman ever died in contemplation over a geometrical diagram. Alfred North WHITEHEAD Suppose a contradiction were to be found in the axioms of set theory. Do you seriously believe that a bridge would fall down? Frank Plumpton RAMSEY Reductio ad absurdum, which Euclid loved so much, is one of a mathematician's finest weapons. It is a far finer gambit than any chess play: a chess player may offer the sacrifice of a pawn or even a piece, but a mathematician offers the game.

Godfried HARDY

It would be better for the true physics if there were no mathematicians on earth.

Daniel BERNOULLI

A mathematician will recognize Cauchy, Jacobi or Helmholtz after reading a few pages, just as a musician recognize, from the first few bars, Mozart, Beethoven or Schubert.

Ludwig BOLTZMANN

One of the principle objects of research in my department is to find the point of view from which the subject appears in the greatest simplicity.

Willard GIBBS



March

9	1	М	(1611) John PELL]	
3	2	Т	(1836) Julius WEINGARTEN		4 th IMO (1962) - 3
	3	w	(1845) Georg CANTOR	RM062	The cube ABCDA'B'C'D' has upper face ABCD
	9	••	(1838) George William HILL	101002	and lower face A'B'C'D' with A directly above
	4	Т	(1822) Jules Antoine LISSAJUS		A' and so on. The point x moves at constant
	5	F	(1817) Angelo GENOCCHI		speed along the perimeter of ABCD, and the
	9	T.	(1759) Benjamin GOMPERTZ		point Y moves at the same speed along the
			(1512) Gerardus MERCATOR		perimeter of B'C'CB. X leaves A towards B at
ł	6	\mathbf{S}	(1866) Ettore BORTOLOTTI		the same moment as Y leaves B' towards C'.
	7	s	(1824) Delfino CODAZZI		What is the locus of the midpoint of XY?
	•	5	(1792) William HERSCHEL		*
10	8	М	(1851) George CHRYSTAL		Gauss Facts (Heath & Dolphin)
10	9	T	(1900) Howard Hathaway AIKEN		For Gauss, arithmetic is consistent AND
	5		(1818) Ferdinand JOACHIMSTHAL		complete.
	10	w	(1864) William Fogg OSGOOD		It only takes Gauss 4 minutes to sing "Aleph-
	11	т	(1811) Urbain Jean Joseph LE VERRIER		Null Bottles of Beer on the Wall".
	11	1	(1853) Salvatore PINCHERLE		
	12	F	(1685) George BERKELEY		From a Serious Place
	14	r	(1859) Ernesto CESARO		Q: What's sour, yellow, and equivalent to the
			(1859) Effestive CESARO (1824) Gustav Robert KIRKHHOFF		Axiom of Choice?
ł	13	\mathbf{S}	(1957) Rudy D'ALEMBERT		
	10	6	(1957) Kudy D'ALEMBERT (1861) Jules Joseph DRACH		A: The Zorn's Lem(m)on.
ł	14	\mathbf{S}	(1861) Jules Joseph DRACH (1879) Albert EINSTEIN	RM074	Geometry is the noblest branch of physics.
	14	6	(1864) Jozef KURSCHAK	101074	
11	15	м	(1868) Grace CHISOLM YOUNG		William Fogg OSGOOD
11	10	141	(1860) Walter Frank Raphael WELDON		
	16	т	(1750) Caroline HERSCHEL		And what are these fluxions? The velocities of
	10	1	(1846) Magnus Gosta MITTAG-LEFFLER		evanescent increments? They are neither finite
			(1789) Georg Simon OHM		quantities, nor quantities infinitely small, nor
	17	w	(1876) Ernest Benjamin ESCLANGON		yet nothing. May we not call them ghosts of
	17	**	(1897) Charles FOX		departed quantities?
	18	т	(1640) Philippe de LA HIRE		George BERKELEY
	10		(1690) Christian GOLDBACH	RM122	
			(1796) Jacob STEINER	10101122	
	19	F	(1862) Adolf KNESER		Common sense is nothing more than a deposit
	10	•	(1910) Jacob WOLFOWITZ		of prejudices laid down in the mind before you
	20	\mathbf{S}	(1884) Philip FRANCK		reach eighteen.
	20	D	(1840) Franz MERTENS		Albert EINSTEIN
			(1938) Sergi Petrovich NOVIKOV		
	21	\mathbf{S}	(1884) George David BIRKHOFF		
		N	(1768) Jean Baptiste Joseph FOURIER		A Mathematician is a machine for turning
12	22	М	(1917) Irving KAPLANSKY		coffee into theorems.
1	23	T	(1882) Emmy Amalie NOETHER	RM050	Paul ERDOS
	-0		(1897) John Lighton SYNGE	1111000	
			(1754) Georg Freiherr von VEGA		Perfect numbers (like perfect men) are very
l	24	w	(1948) Sun-Yung (Alice) CHANG		rare.
			(1809) Joseph LIOUVILLE		
Ì	25	Т	(1538) Christopher CLAUSIUS		René DESCARTES
l	26	F	(1848) Konstantin ADREEV		
	-	-	(1913) Paul ERDOS	RM110	A mathematician is a person who can find
l	27	\mathbf{S}	(1857) Karl PEARSON		analogies between theorems; a better
Ì	28	$\mathbf{\tilde{s}}$	(1749) Pierre Simon de LAPLACE		mathematician is one who can see analogies
	-		(1928) Alexander Grothendieck	RM086	between proofs and the best mathematician
13	29	Μ	(1896) Wilhelm ACKERMAN		can notice analogies between theories. One can
			(1825) Francesco FAA' DI BRUNO		imagine that the ultimate mathematician is
			(1873) Tullio LEVI-CIVITA	RM098	one who can see analogies between analogies.
Î	30	Т	(1892) Stefan BANACH		Stefan BANACH
	31	Ŵ	(1596) René DESCARTES		
L					



April

	1	Т	(1895) Alexander Craig AITKEN		
	1	1	(1776) Marie-Sophie GERMAIN		4 th IMO (1962) - 5
			(1640) Georg MOHR		Given three distinct points A, B, C on a circle
	2	\mathbf{F}	(1934) Paul Joseph COHEN		K, construct a point D on K, such that a circle
	3	\mathbf{S}	(1900) Albert Edward INGHAM		can be inscribed in ABCD.
			(1971) Alice RIDDLE		Gauss Facts (Heath & Dolphin)
			(1909) Stanislaw Marcin ULAM		
			(1835) John Howard Van AMRINGE		When Gauss tells you that he's lying, he's
	4	\mathbf{S}	(1842) Francois Edouard Anatole LUCAS		telling the truth.
			(1809) Benjamin PEIRCE	RM123	Gauss once played himself in a zero-sum game
			(1949) Shing-Tung YAU		and won \$50.
14	5	М	(1869) Sergi Alexeievich CHAPLYGIN		From a Serious Place
			(1607) Honorè FABRI		
			(1588) Thomas HOBBES		Q: What is a compact city?
			(1622) Vincenzo VIVIANI		A: It's a city that can be guarded by finitely
	6	Т	(1801) William Hallowes MILLER		many nearsighted policemen.
	7	W	(1768) Francais Joseph FRANCAIS		Author of this joke says that the original
	8	Т	(1903) Marshall Harvey STONE		answer was: "It's a city that can be guarded
	9	\mathbf{F}	(1816) Charles Eugene DELAUNAY		by a finite number of policemen, no matter
			(1919) John Presper HECKERT		how nearsighted a policeman is."
			(1791) George PEACOCK		We could present spatially an atomic fact
	10	\mathbf{S}	(1857) Henry Ernest DUDENEY		which contradicted the laws of physics, but not
	11	\mathbf{S}	(1953) Andrew John WILES		one which contradicted the laws of geometry.
15	12	М	(1794) Germinal Pierre DANDELIN		
			(1903) Jan TINBERGEN		Ludwig WITTGENSTEIN
			(1852) Carl Louis Ferdinand Von LINDEMANN		
	13	Т	(1728) Paolo FRISI		I will stop here.
			(1813) Duncan Farquharson GREGORY		[Concluding the lecture in which he claimed to
			(1879) Francesco SEVERI		have proved the Taniyama-Weil Conjecture
	14	W	(1629) Christiaan HUYGENS		for a class of examples, including those
	15	Т	(1548) Pietro Antonio CATALDI		necessary to prove Fermat's Last Theorem.]
			(1452) Leonardo da VINCI	DICON	Andrew John WILES
			(1707) Leonhard EULER	RM051	Andrew John WILLS
		Б	(1809) Herman Gunther GRASSMANN		
	16	\mathbf{F}	(1823) Ferdinand Gotthold Max EISENSTEIN		Knowing what is big and what is small is
	15	a	(1682) John HADLEY		more important than being able to solve
	17	\mathbf{S}	(1798) Etienne BOBILLIER		partial differential equations.
	18	\mathbf{S}	(1853) Arthur Moritz SCHONFLIES (1907) Lars Valerian AHLFORS		Any good idea can be stated in fifty words or
	10	5	(1967) Lars Valerian AHLFORS (1949) Charles Luois FEFFERMAN		less.
			(1918) Hsien Chung WANG		The infinite we shall do right away. The finite
16	19	м	(1905) Charles EHRESMANN		may take a little longer.
10	13	TAT.	(1901) Kiyoshi OKA		Stanislaw Marcin ULAM
			(1880) Evgeny Evgenievich SLUTSKY		Stanisław Marcin ULAM
			(1883) Richard VIN MISES		
	20	Т	(1839) Francesco SIACCI		Mathematicians are born, not made.
	21	Ŵ	(1774) Jean Baptiste BIOT		Jules Henri POINCARÉ
			(1652) Michel ROLLE		
			(1875) Teiji TAKAGI		
İ	22	Т	(1887) Harald August BOHR	RM063	If anybody says he can think about quantum
	-		(1811) Otto Ludwig HESSE		problems without getting giddy, that only
	23	\mathbf{F}	(1858) Max Karl Ernst Ludwig PLANCK		shows he has not understood the first thing
ĺ	24	\mathbf{s}	(1863) Giovanni VAILATI		about them.
		-	(1899) Oscar ZARISKI	RM099	Max Karl Ernst Ludwig PLANK
	25	\mathbf{S}	(1849) Felix Christian KLEIN		
			(1903) Andrei Nicolayevich KOLMOGOROV		This paper is so bad it is not even wrong.
L			(1900) Wolfgang PAULI		
17	26	Μ	(1889) Ludwig Josef Johan WITTGENSTEIN		Wolfgang PAULI
	27	Т	(1755) Marc-Antoine PARSEVAL des Chenes		
	28	W	(1906) Kurt GODEL	RM087	Everyone knows what a curve is, until he has
	29	Т	(1854) Jules Henri POINCARÈ	RM075	studied enough mathematics to become
ĺ	30	\mathbf{F}	(1777) Johann Carl Friedrich GAUSS		confused through the countless number of
			(1916) Claude Elwood SHANNON	RM111	possible exceptions.



May

	1	\mathbf{S}	(1825) Johann Jacob BALMER		4 th IMO (1962) - 6
	2	\mathbf{S}	(1860) D'Arcy Wentworth THOMPSON		
			(1905) Kazimierz ZARANKIEWITZ		The radius of the circumcircle of an isosceles
18	3	М	(1842) Otto STOLZ		triangle is R and the radius of its inscribed
			(1860) Vito VOLTERRA		circle is <i>r</i> . Prove that the distance between the
	4	Т	(1845) William Kingdon CLIFFORD		two centres is $\sqrt{R(R-2r)}$.
	5	W	(1833) Lazarus Emmanuel FUCHS		····· ································
			(1897) Francesco Giacomo TRICOMI		Gauss Facts (Heath & Dolphin)
	6	Т	(1872) Willem DE SITTER		For Gauss, point nine repeating equals
	_	_	(1906) Andrè WEIL	RM088	whatever he wants it to equal.
	7	\mathbf{F}	(1896) Pavel Sergieievich ALEXANDROV		-
			(1926) Alexis Claude CLAIRAUT		Gauss did not prove theorems, he simply
			(1881) Ebenezer CUNNINGHAM		stared at them until they yielded their solutions.
	0	e	(1854) Giuseppe VERONESE (1859) Johan Ludwig William Valdemar JENSEN		solutions.
	8 9	\mathbf{s}	(1859) Johan Ludwig William Valdemar JENSEN (1876) Gilbert Ames BLISS		From a Serious Place
	9	Э	(1746) Gaspard MONGE		\mathbf{D} where \mathbf{T}
19	10	М	(1746) Gaspard MONGE (1788) Augustin Jean FRESNEL		Q: Why can't you grow wheat in $Z/6Z$?
15	10	IVI	(1788) Augustin Jean FRESNEL (1847) William Karl Joseph KILLING		A: Because it's not a field.
			(1958) Piotr Rizierovich SILVERBRAHMS		
	11	т	(1918) Richard Phillips FEYNMAN	RM076	Rigour is to the mathematician what morality
	12	w	(1845) Pierre René Jean Baptiste Henry	101010	is to men.
		••	BROCARD		André WEIL
			(1902) Frank YATES		
			(1820) Florence NIGHTINGALE	RM104	Although this may seem a paradox, all exact
	13	Т	(1750) Lorenzo MASCHERONI		science is dominated by the idea of
	14	\mathbf{F}	(1863) John Charles FIELDS	RM100	approximation.
			(1832) Rudolf Otto Sigismund LIPSCHITZ		
	15	\mathbf{S}	(1939) Brian HARTLEY		Men who are unhappy, like men who sleep badly, are always proud of the fact.
1	16	\mathbf{S}	(1718) Maria Gaetana AGNESI	RM112	
			(1821) Pafnuti Lvovi CHEBYSHEV		Bertrand Arthur William RUSSELL
20	17	Μ	(1940) Alan KAY		
	18	Т	(1850) Oliver HEAVISIDE		Nature is not embarrassed by difficulties of
ļ			(1892) Bertrand Arthur William RUSSELL	RM052	analysis.
ļ	19	W	(1919) Georgii Dimitirievich SUVOROV		Augustin Jean FRESNEL
	20	Т	(1861) Henry Seely WHITE		
	21	F	(1792) Gustave Gaspard de CORIOLIS		
ļ			(1471) Albrecht DURER	RM124	To those who do not know mathematics it is
ļ	22	\mathbf{S}	(1865) Alfred Cardew DIXON		difficult to get across a real feeling as to the
	23	S	(1914) Lipa BERS		deepest beauty of nature [] If you want to
21	24	M	(1544) William GILBERT		appreciate nature, it is necessary to understand the language that she speaks in.
	25	Т	(1838) Karl Mikailovich PETERSON		
	26	W	(1667) Abraham DE MOIVRE (1896) Yuri Dimitrievich SOKOLOV		Richard Phillips FEYNMAN
	97	T			
	27	Т F	(1862) John Edward CAMPBELL	RM093	To isolate mathematics from the practical
	28	г	(1710) Johann (II) BERNOULLI (1676) Jacopo Francesco RICCATI	RM093	demands of the sciences is to invite the sterility
	29	\mathbf{S}	(1870) Sacopo Francesco RICCATI (1882) Harry BATEMAN		of a cow shut away from the bulls.
	2 <i>5</i> 30	S	(1814) Eugene Charles CATALAN		Pafnuti Lvovi CHEBYSHEV
22	31	M	(1926) John KEMENY		
44	91	101	(1520) Sohii KEMENT		
					Mathematics is very much like poetry. What
					makes a great poem is that there is a great
					amount of thought expressed in very few words. In this sense, formulas like $e^{i\pi}+1=0$ are
					poems.
					-
					Lipa BERS
					This series is divergent, therefore we may be

This series is divergent, therefore we may be able to do something with it.

Oliver HEAVISIDE



June

	1	Т	(1796) Sadi Leonard Nicolas CARNOT		4 th IMO (1962) - 7
			(1851) Edward Bailey ELLIOTT		Prove that a regular tetrahedron has five
	•		(1899) Edward Charles TITCHMARSH		distinct spheres each tangent to its six
	2	W	(1895) Tibor RADÒ		extended edges.
	3	Т	(1659) David GREGORY		U U U U U U U U U U U U U U U U U U U
	4	F	(1809) John Henry PRATT		Conversely, prove that if a tetrahedron has
	5	\mathbf{S}	(1819) John Couch ADAMS		five such spheres then it is regular.
	_	~	(1814) Pierre Laurent WANTZEL	RM065	Gauss Facts (Heath & Dolphin)
	6	\mathbf{S}	(1857) Aleksandr Michailovitch LYAPUNOV	RM077	
			(1436) Johann Muller REGIOMONTANUS		Occam's Razor - The principle stating that the
			(1906) Max ZORN		explanation of any phenomenon is equal to
23	7	M	(1863) Edward Burr VAN VLECK		the explanation that came out of Gauss' mouth.
	8	Т	(1625) Giovanni Domenico CASSINI		mouth.
			(1858) Charlotte Angas SCOTT		From a Serious Place
	0	337	(1860) Alicia Boole STOTT		Q: What is gray and huge and has integer
	9	W	(1885) John Edensor LITTLEWOOD		solutions?
	10	Т	(940) Mohammad ABU'L WAFA Al-Buzjani	DM101	
		Т	(1887) Vladimir Ivanovich SMIRNOV	RM101	A: An elephantine equation.
	11	F	(1937) David Bryant MUMFORD		Algebra goes to the heart of the matter at it
	12	\mathbf{s}	(1888) Zygmunt JANYSZEWSKI (1876) William Sealey GOSSET (Student)		ignores the casual nature of particular cases.
	13	Э	(1876) William Sealey GOSSET (Student) (1831) James Clerk MAXWELL	DM119	Edward Charles TITCHMARSH
			(1928) John Forbes NASH	RM113	Edward Onaries Trionwindon
24	14	М	(1903) Alonzo CHURCH		
24	14	IVI	(1736) Charles Augustin de COULOMB		Fourier is a mathematical poem.
			(1756) Andrei Andreyevich MARKOV	RM125	William THOMSON, Lord Kelvin
	15	т	(1894) Nikolai Gregorievich CHEBOTARYOV	100120	
	10		(1640) Bernard LAMY		
	16	w	(1915) John Wilder TUKEY		Life is good for only two things, discovering
	17	Т	(1898) Maurits Cornelius ESCHER		mathematics and teaching mathematics.
	18	F	(1858) Andrew Russell FORSYTH		Siméon Denis POISSON
	10	-	(1884) Charles Ernest WEATHERBURN		
	19	\mathbf{S}	(1902) Wallace John ECKERT		We are usually convinced more easily by
	10	~	(1623) Blaise PASCAL	RM053	reasons we have found ourselves than by those
	20	\mathbf{S}	(1873) Alfred LOEWY		which have occurred to others.
25	21	Μ	(1828) Giuseppe BRUNO		Blaise PASCAL
			(1781) Simeon Denis POISSON		Dialse I ADOAL
Î	22	Т	(1864) Hermann MINKOWSKY		
			(1822) Mario PIERI		The mathematical education of the young
			(1910) Konrad ZUSE		physicist [Albert Einstein] was not very solid,
	23	\mathbf{W}	(1912) Alan Mathison TURING	RM089	which I am in a good position to evaluate since
ļ	24	Т	(1880) Oswald VEBLEN		he obtained it from me in Zurich some time
	25	\mathbf{F}	(1908) William Van Orman QUINE		ago.
	26	\mathbf{S}	(1918) Yudell Leo LUKE		Hermann MINKOWSKY
ļ			(1823) William THOMSON, Lord Kelvin		
	27	\mathbf{S}	(1806) Augustus DE MORGAN		Ampère was the Newton of Electricity.
26	28	\mathbf{M}	(1875) Henri Leon LEBESGUE		1 / 0
ļ	29	Т	(1888) Aleksandr Aleksandrovich FRIEDMANN	RM101	James Klerk MAXWELL
	30	W	(1791) Felix SAVART		
					Before creation God did just pure mathematics. Then He thought it would be a pleasant change to do some applied.
					1 0 11
					John Edensor LITTLEWOOD



July

	~				
	1	Т	(1788) Jean Victor PONCELET		6 th IMO (1964) - 1
ļ	~	-	(1643) Gottfried Wilhelm von LEIBNIZ	RM054	
	2	\mathbf{F}	(1852) William BURNSIDE		Find all natural numbers n for which 7
			(1820) William John Racquorn RANKINE		divides $2^n - 1$.
	3	\mathbf{S}	(1807) Ernest Jean Philippe Fauque de		Prove that there is no natural number n for
			JONQUIERE		
		~	(1897) Jesse DOUGLAS		which 7 divides $2^n + 1$.
	4	\mathbf{S}	(1917) Michail Samuilovich LIVSIC		
			(1906) Daniel Edwin RUTHERFORD		Gauss Facts (Heath & Dolphin)
27	5	M	(1936) James MIRRLEES		Gauss drinks his beer from a Klein bottle.
	6	Т	(1849) Alfred Bray KEMPE		For Gauss, there are no indefinite integrals.
	7	W	(1906) William FELLER		
			(1922) Vladimir Aleksandrovich MARCHENKO		From a Serious Place
	0	Т	(1816) Johann Rudolf WOLF (1760) Christian KRAMP		Q: Can you prove Lagrange's Identity?
	8	I		DM190	A: Are you kidding? It's really hard to prove
	0	F	(1904) Henri Paul CARTAN	RM126	the identity of someone who's been dead for
	9 10	г S	(1845) George Howard DARWIN (1862) Roger COTES		over 150 years!
	10	5	(1862) Roger COTES (1868) Oliver Dimon KELLOGG		
1	11	\mathbf{S}	(1868) Onver Dimon KELLOGG (1890) Giacomo ALBANESE		[The infinitesimals] neither have nor can have
	11	5	(1857) Sir Joseph LARMOR		theory; in practise it is a dangerous instrument in the hands of beginners. Anticipating, for my
			(1888) Jacob David TAMARKIN	RM101	part, the judgement of posterity, I would
28	12	М	(1895) Richard BUCKMINSTER FULLER	RM066	predict that this method will be accused one
1			(1875) Ernest Sigismund FISCHER		day, and rightly, of having retarded the
	13	т	(1527) John DEE		progress of the mathematical sciences.
			(1741) Karl Friedrich HINDENBURG		
i i	14	W	(1671) Jacques D'ALLONVILLE		Francois Joseph SERVOIS
			(1793) George GREEN	RM078	
	15	Т	(1865) Wilhelm WIRTINGER		When working on a problem, I never think
			(1906) Adolph Andrej Pavlovich YUSHKEVICH		about beauty; I think only of how to solve the
	16	\mathbf{F}	(1903) Irmgard FLUGGE-LOTZ		problem. But when I have finished, if the
ļ			(1678) Jakob HERMANN		solution is not beautiful, I know that it is
	17	\mathbf{S}	(1837) Wilhelm LEXIS		wrong.
		<i></i>	(1831) Victor Mayer Amedeè MANNHEIM		Richard Buckminster FULLER
	18	\mathbf{S}	(1635) Robert HOOKE	RM114	
			(1853) Hendrich Antoon LORENTZ		Miracles are not to be multiplied beyond
00	10	3.4	(1013) Hermann von REICHENAU		necessity.
29	19	M T	(1768) Francois Joseph SERVOIS (1947) Gerd BINNIG		Taking mathematics from the beginning of the
	20	L	(1947) Gerd BINNIG (1876) Otto BLUMENTHAL		word to the time of Newton, what he has done
ł	21	w	(1620) Jean PICARD		is much the better half.
	41	vv	(1820) Jean FICARD (1848) Emil WEYR		Gottfried LEIBNITZ
			(1849) Robert Simpson WOODWARD		Gottirieu LEIBNITZ
Ì	22	Т	(1784) Friedrich Wilhelm BESSEL		
l	23	F	(1775) Etienne Louis MALUS		All possible definitions of probability fall short
	-	-	(1854) Ivan SLEZYNSKY		of the actual practice.
İ	24	\mathbf{S}	(1871) Paul EPSTEIN		William FELLER
			(1923) Christine Mary HAMILL		
			(1851) Friedrich Herman SCHOTTKY		A quantity that is increased on decreased -f
	25	\mathbf{S}	(1808) Johann Benedict LISTING		A quantity that is increased or decreased of an infinitely small quantity is neither increased
30	26	Μ	(1903) Kurt MAHLER		nor decreased.
	27	Т	(1801) George Biddel AIRY		
			(1667) Johann BERNOULLI	RM093	Johann BERNOULLI
			(1848) Lorand Baron von EOTVOS		
	<i></i>		(1871) Ernst Friedrich Ferdinand ZERMELO	RM090	
	28	W	(1954) Gerd FALTINGS		
	29	Т	(1898) Isidor Isaac RABI		
}	30	F	(1889) Vladimir Kosma ZWORKYN		
	31	\mathbf{S}	(1704) Gabriel CRAMER		
			(1712) Johann Samuel KOENIG		



August

	1	e	(1861) Ivar Otto BENDIXSON]	
	1	\mathbf{S}	(1861) Ivar Otto BENDIXSON (1881) Otto TOEPLITZ		6 th IMO (1964) - 2
31	2	М	(1981) Otto TOEPLITZ (1902) Mina Spiegel REES		Suppose that a, b, c are the sides of a triangle.
91	4	IVI	(1902) Mina Spieger REES (1856) Ferdinand RUDIO		Prove that:
	3	т	(1914) Mark KAC	RM115	
	4	w	(1805) Sir William Rowan HAMILTON	RM079	$a^{2}(b+c-a)+$
	-	••	(1838) John VENN	101075	
	5	Т	(1802) Niels Henrik ABEL	RM055	$b^2(c+a-b)+$
	6	F	(1638) Nicolas MALEBRANCHE	1010000	$c^2(a+b-c) \le 3abc.$
	Ŭ	-	(1741) John WILSON		$c (a+b-c) \leq 5abc.$
	7	\mathbf{S}	(1868) Ladislaus Josephowitsch BORTKIEWITZ		Gauss Facts (Heath & Dolphin)
	8	\mathbf{S}	(1902) Paul Adrien Maurice DIRAC	RM103	Gauss once started falling asleep in his
32	9	Μ	(1537) Francesco BAROZZI (Franciscus Barocius)		complex analysis class. The result
	10	Т	(1602) Gilles Personne de ROBERVAL		Singularities.
	11	W	(1730) Charles BOSSUT		
			(1842) Enrico D'OVIDIO		From a Serious Place
	12	Т	(1882) Jules Antoine RICHARD		Q: How many topologist does it take to change
			(1887) Erwin Rudolf Josef Alexander	RM103	a light bulb?
ļ			SCHRODINGER		A: Just one, but what will you do with the
	13	\mathbf{F}	(1625) Erasmus BARTHOLIN		doughnut?
			(1861) Cesare BURALI-FORTI		
ļ	. .	~	(1819) George Gabriel STOKES		Thus, the task is, not so much to see what no
	14	\mathbf{S}	(1530) Giovanni Battista BENEDETTI		one has yet seen; but to think what nobody has
			(1865) Guido CASTELNUOVO		yet thought, about that which everybody sees.
			(1842) Jean Gaston DARBOUX (1866) Charles Gustave Nicolas de la VALLEÈ		Erwin Rudolf Joseph Alezander
			POUSSIN		SCHRÖDINGER
	15	\mathbf{S}	(1892) Louis Pierre Victor duc de BROGLIE		
	10	~	(1863) Aleksei Nikolaevich KRYLOV		This result is too beautiful to be false; it is
			(1901) Petr Sergeevich NOVIKOV		more important to have beauty in one's
33	16	Μ	(1821) Arthur CAYLEY		equations than to have them fit experiment.
			(1773) Louis Beniamin FRANCOEUR		Paul Adrien Maurice DIRAC
	17	Т	(1601) Pierre de FERMAT	RM091	
	18	W	(1685) Brook TAYLOR		And perhaps, posterity will thank me for
	19	Т	(1646) John FLAMSTEED		having shown it that the ancients did not
			(1739) Georg Simon KLUGEL		know everything.
	20	\mathbf{F}	(1863) Corrado SEGRE		Pierre de FERMAT
			(1882) Waclav SIERPINSKI		FIEFRE de FERMAI
	~ 1	a	(1710) Thomas SIMPSON	DMIOF	
	21	S	(1789) Augustin Louis CAUCHY	RM127	As for everything else, so for a mathematical
9.4	22	S	(1647) Denis PAPIN		theory: beauty can be perceived but not
34	23	М	(1829) Moritz Benedikt CANTOR (1683) Giovanni POLENI		explained.
	24	Т	(1561) Bartholomeo PITISCUS		Arthur CAYLEY
	44	1	(1961) Bartholomeo PITISCUS (1942) Karen Keskulla UHLENBECK		
	25	w	(1561) Philip van LANSBERGE		There are surely worse things than being
	-0	••	(1844) Thomas MUIR		wrong, and being dull and pedantic are surely
İ	26	Т	(1728) Johann Heinrich LAMBERT		among them.
	-	-	(1875) Giuseppe VITALI		Mark KAC
ĺ	27	\mathbf{F}	(1858) Giuseppe PEANO	RM067	
ĺ	28	\mathbf{S}	(1796) Irenee Jules BIENAYMè		
	29	\mathbf{S}	(1904) Leonard ROTH		Whoever [in the pursuit of science] seeks after
35	30	М	(1856) Carle David Tolmè RUNGE		immediate practical utility may rest assured
			(1906) Olga TAUSSKY-TODD		that he seeks in vain.
	31	Т	(1821) Hermann Ludwig Ferdinand von		Hermann von HELMHOLTZ
			HELMHOLTZ		



September

 3 F (1884) Solomon LEFSCHETZ (1908) Lev Semenovich PONTRYAGIN (1814) James Joseph SYLVESTER RM 4 S (1809) Luigi Federico MENABREA 5 S (1725) Jean Etienne MONTUCLA 	[080
2T(1878) Mauriche René FRECHET (1923) René THOMRM3F(1884) Solomon LEFSCHETZ (1908) Lev Semenovich PONTRYAGIN (1814) James Joseph SYLVESTERRM4S(1809) Luigi Federico MENABREA5S(1725) Jean Etienne MONTUCLA	[080
3F(1923) René THOMRM3F(1884) Solomon LEFSCHETZ (1908) Lev Semenovich PONTRYAGIN (1814) James Joseph SYLVESTERRM4S(1809) Luigi Federico MENABREARM5S(1725) Jean Etienne MONTUCLA	[080
 3 F (1884) Solomon LEFSCHETZ (1908) Lev Semenovich PONTRYAGIN (1814) James Joseph SYLVESTER RM 4 S (1809) Luigi Federico MENABREA 5 S (1725) Jean Etienne MONTUCLA 	080
(1908) Lev Semenovich PONTRYAGIN (1814) James Joseph SYLVESTERRM4S(1809) Luigi Federico MENABREA5S(1725) Jean Etienne MONTUCLA	
(1814) James Joseph SYLVESTERRM4S(1809) Luigi Federico MENABREA5S(1725) Jean Etienne MONTUCLA	
4S(1809) Luigi Federico MENABREA5S(1725) Jean Etienne MONTUCLA	104
5 S (1725) Jean Etienne MONTUCLA	104
(1667) Giovanni Girolamo SACCHERI RM	[128
36 6 M (1859) Boris Jakovlevich BUKREEV	120
(1863) Dimitri Aleksandrovich GRAVE	
7 T (1707) George Louis Leclerc comte de BUFFON	
(1955) Efim ZELMANOV	
8 W (1588) Marin MERSENNE RM	[092
(1584) Gregorius SAINT-VINCENT	
9 T (1860) Frank MORLEY	
10 F (1839) Charles Sanders PEIRCE	
11 S (1623) Stefano degli ANGELI	
(1877) sir James Hopwood JEANS	
12 S (1900) Haskell Brooks CURRY	
(1891) Antoine Andrè Louis REYNAUD	
37 13 M (1885) Wilhelm Johann Eugen BLASCHKE (1873) Constantin CARATHEODORY	
14 T (1858) Henry Burchard FINE	
(1891) Ivan Matveevich VINOGRADOV	
15 W (973) Abu Arrayhan Muhammad ibn Ahmad	
AL'BIRUNI	
(1886) Paul Pierre LEVY	
16 T (1494) Francisco MAUROLICO	
(1736) Johann Nikolaus TETENS	
17 F (1743) Marie Jean Antoine Nicolas de Caritat de	
CONDORCET	
	[068
18S(1752) Adrien Marie LEGENDRE19S(1749) Jean Baptiste DELAMBRE	
19 S (1749) Jean Baptiste DELAMBRE 38 20 M (1861) Frank Nelson COLE	
(1842) Alexander Wilhelm von BRILL	
21 T (1899) Juliusz Pawel SCHAUDER	
22 W (1769) Louis PUISSANT	
	116
(1803) Jaques Charles Francois STURM	
23 T (1900) David van DANTZIG	
(1768) William WALLACE	
	[064
(1625) Johan DE WITT (1801) Michail Vasilarish OSTROCRADSKI	050
(1801) Michail Vasilevich OSTROGRADSKI RM 25 S (1888) Stefan MAZURKIEWICZ	[056
(1888) Steran MAZURKIEWICZ (1819) George SALMON	
26 S (1688) Willem Jakob 's GRAVESANDE	
(1854) Percy Alexander MACMAHON	
(1891) Hans REICHENBACH	
39 27 M (1855) Paul Emile APPEL	
(1876) Earle Raymond HEDRICK	
(1919) James Hardy WILKINSON	
28 T (1873) Julian Lowell COOLIDGE	
(1761) Ferdinand Francois Desirè Budan de	
BOISLAURENT	
(1698) Pierre Louis Moreau de MAUPERTUIS	
29 W (1812) Adolph GOPEL (1561) Adriaan van ROOMEN	
30 T (1775) Robert ADRAIN	
(1883) Ernst HELLINGER	
(1829) Joseph WOLSTENHOLME	

6 th IMO (1964) - 3 Triangle ABC has sides a, b, c. Tangents to inscribed circle are constructed parallel to the Each tangent forms a triangle with the othe sides of the triangle and a circle is inscribed in of these three triangles. Find the total area of at inscribed circles.	sides. r two 1 each
Gauss Facts (Heath & Dolphin)	
Imaginary numbers are simply those Gauss has not deemed worthy of existence The shortest distance between two poir Gauss.	e.
From a Serious Place	
Q: How many number theorist does it tak change a light bulb?	e to
A: This is not known, but it is conjectured be an elegant prime.	l to
I believe that proving is not a natural ac for mathematicians. René Ti	
kene T	IUM
The early study of Euclid made me a hageometry.	ter of
James Joseph SYLVES	STER
If error is corrected whenever it is recogn the path of error is the path of truth. Hans REICHENB	
If it's just turning the crank it's algebra, it's got an idea in it, it's topology. Solomon LEFSCH	
This branch of mathematics [Probabilit the only one, I believe, in which good we frequently get results which are en erroneous.	riters
Charles Sanders PE	IRCE
We may as well cut out the group theory. is a subject that will never be of any u physics.	
sir James Hopwood JE	ANS
[Upon proving that the best betting stra for "Gambler's Ruin" was to bet all on the trial.]	
It is true that a man who does this is a f have only proved that a man who anything else is an even bigger fool.	
Julian Lowell COOLI	DGE
If only I had the theorems! Then I should the proofs easily enough	l find
Bernhard RIEM	ANN



October

1	l F	(1671) Luigi Guido GRANDI		6 th
		(1898) Bela KEREKJARTO' (1908) Arthur ERDELYI		F
2	2 S	(1908) Arthur EKDELTT (1825) John James WALKER		Eac one
3	3 S	(1944) Pierre René DELIGNE		leas
40 4		(1759) Louis Francois Antoine ARBOGAST		san
- 01	r Mi	(1797) Jerome SAVARY		
5	5 Т	(1781) Bernhard Placidus Johann Nepomuk	RM117	Ga
	-	BOLZANO		Ond
		(1861) Thomas Little HEATH		Kni
		(1732) Nevil MASKELYNE		Fre
6	6 W	(1831) Julius Wilhelm Richard DEDEKIND	RM081	
		(1552) Matteo RICCI		Q :
		(1908) Sergei Lvovich SOBOLEV		a li
7		(1885) Niels BOHR		A:]
8		(1908) Hans Arnold HEILBRONN		con
ę) S	(1581) Claude Gaspard BACHET de Meziriac		Mu
		(1873) Karl SCHWARTZSCHILD		not
1	0 S	(1704) Johann Andrea von SEGNER (1861) Heinrich Friedrich Karl Ludwig		see
1	0 3	(1861) Heinrich Friedrich Karl Ludwig BURKHARDT		tha
41 1	1 M	(1910) Cahit ARF		eve
	- 111	(1777) Barnabè BRISSON		
		(1675) Samuel CLARKE		
		(1885) Alfred HAAR		It i
1	2 T	(1860) Elmer SPERRY		son
1	3 W	(1890) Georg FEIGL		ma
		(1893) Kurt Werner Friedrich REIDEMEISTER		ma
		(1932) John Griggs THOMSON		
1	4 T	(1868) Alessandro PADOA		
		(1801) Joseph Antoine Ferdinand PLATEAU		An
1	5 F	(1687) Robert SIMSON (1776) Poter PAPLOW		mis
1	а г	(1776) Peter BARLOW (1735) Jesse RAMSDEN		fiel
		(1608) Evangelista TORRICELLI		An
1	6 S	(1879) Philip Edward Bertrand JOURDAIN		has
1		(1888) Paul Isaac BERNAYS		Pre
-	• ~	(1759) Jacob (II) BERNOULLI	RM093	futi
42 1	8 M	(1741) John WILSON		Ho
1	9 T	(1910) Subrahmanyan CHANDRASEKHAR		par
		(1903) Jean Frederic Auguste DELSARTE		pro
2	0 W	(1865) Aleksandr Petrovich KOTELNIKOV		
		(1632) Sir Cristopher WREN	RM105	
		(1863) William Henry YOUNG		230
2	1 T	(1677) Nicolaus (I) BERNOULLI	1111030	wil
		(1823) Enrico BETTI (1803) William L Feneral FERRAR		cur
		(1893) William LEonard FERRAR (1855) Giovan Battista GUCCIA		tha
2	2 F	(1907) Sarvadaman CHOWLA	1011120	bey
4	- T.	(1587) Joachim JUNGIUS		-
		(1895) Rolf Herman NEVANLINNA		
2	3 S	(1865) Piers BOHL		
2		(1804) Wilhelm Eduard WEBER	[]	Un
		(1873) Edmund Taylor WITTAKER		the in
43 2	5 M	(1811) Evariste GALOIS	RM069	doe
2	6 T	(1911) Shiing-Shen CHERN		rea
		(1849) Ferdinand Georg FROBENIUS		u
		(1857) Charles Max MASON		
2	7 W	(1678) Pierre Remond de MONTMORT		
-	~	(1856) Ernest William HOBSON		
2		(1804) Pierre Francois VERHULST		
2		(1925) Klaus ROTH		
3		(1906) Andrej Nikolaevich TIKHONOV	DM057	
3	1 S	(1815) Karl Theodor Wilhelm WEIERSTRASS	RM057	

6 th IMO (1964) - 4 Each pair from 17 people exchange letters on one of three topics. Prove that there are at least 3 people who write to each other on the same topic. Gauss Facts (Heath & Dolphin) Once, while playing chess, Gauss solved the Knights Problem in six moves. From a Serious Place Q: How many geometers does it take to screw a light bubl? A: None. You can't do it with straightedge and compass. Much as I venerate the name of Newton, I am not obliged to believe that he was infallible. I see with regret that he was liable to err, and that his authority has, perhaps, sometimes even retarded the progress of science. William Henry YOUNG It is true that a mathematician who is not also something of a poet will never be a perfect mathematician. Karl Theodor Wilhem WEIERSTRASS An expert is a man who has made all the mistakes which can be made in a very narrow field. Anyone who is not shocked by quantum theory has not understood it. Prediction is very difficult, especially about the future. How wonderful that we have met with a paradox. Now we have some hope of making progress. Niels BOHR
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Once, while playing chess, Gauss solved the Knights Problem in six moves. From a Serious Place Q: How many geometers does it take to screw a light bulb? A: None. You can't do it with straightedge and compass. Much as I venerate the name of Newton, I am not obliged to believe that he was infallible. I see with regret that he was liable to err, and that his authority has, perhaps, sometimes even retarded the progress of science. William Henry YOUNG It is true that a mathematician who is not also something of a poet will never be a perfect mathematician. Karl Theodor Wilhem WEIERSTRASS An expert is a man who has made all the mistakes which can be made in a very narrow field. Anyone who is not shocked by quantum theory has not understood it. Prediction is very difficult, especially about the future. How wonderful that we have met with a paradox. Now we have some hope of making progress. Niels BOHR 2 ³⁰ (2 ³¹ -1) is the greatest perfect number that will ever be discovered, for, as they are merely curious without being useful, it is not likely that any person will attempt to find a number beyond it. Peter BARLOW Unfortunately what is little recognized is that the most worthwhile scientific books are those in which the author clearly indicates what he
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readers by concealing difficulties.
Evariste GALOIS



November

44	1	\mathbf{M}	(1535) Giambattista DELLA PORTA	
	2	Т	(1815) George BOOLE	RM094
	3	w	(1878) Arthur Byron COBLE	
	0		(1867) Martin Wilhelm KUTTA	
	4	Т	(1744) Johann (III) BERNOULLI	RM093
	-	-	(1865) Pierre Simon GIRARD	1010000
	5	Б	(1930) John Frank ADAMS	
	9	Τ.	(1848) James Whitbread Lee GLAISHER	
	6	\mathbf{S}	(1781) Giovanni Antonio Amedeo PLANA	
	7	s	(1660) Thomas Fantet DE LAGNY	
	1	Э	(1799) Karl Heinrich GRAFFE	
			(1799) Karl Heinrich GRAFFE (1898) Raphael SALEM	
45	8	М	(1846) Eugenio BERTINI	
40	0	IVI	(1846) Eugenio BERTINI (1848) Fredrich Ludwig Gottlob FREGE	
			(1848) Fredrich Ludwig Gottion FREGE (1869) Felix HAUSDORFF	
			(1854) Johannes Robert RYDBERG	
	0	т	(1854) Johannes Robert RTDBERG (1847) Carlo Alberto CASTIGLIANO	
	9	1		
			(1885) Theodor Franz Eduard KALUZA	
			(1922) Imre LAKATOS	DMOOO
	10	117	(1885) Hermann Klaus Hugo WEYL	RM082
	10	W	(1829) Helwin Bruno CHRISTOFFEL	
	11	Т	(1904) John Henry Constantine WHITEHEAD	
	12	\mathbf{F}	(1842) John William STRUTT Lord RAYLEIGH	
			(1927) Yutaka TANIYAMA	
			(1825) Michail Egorovich VASHCHENKO-	
		~	ZAKHARCHENKO	
	13	\mathbf{S}	(1878) Max Wilhelm DEHN	
		~	(1876) Ernest Julius WILKZYNSKY	
	14	S	(1845) Ulisse DINI	
46	15	М	(1688) Louis Bertrand CASTEL	
			(1793) Michel CHASLES	
		m	(1794) Franz Adolph TAURINUS	
	16	Т	(1835) Eugenio BELTRAMI	
	17	W	(1717) Jean Le Rond D'ALEMBERT	
			(1597) Henry GELLIBRAND	DMIIO
	10	m	(1790) August Ferdinand MÖBIUS	RM118
	18	Т	(1927) Jon Leslie BRITTON	
		-	(1872) Giovanni Enrico Eugenio VACCA	
	19	\mathbf{F}	(1901) Nina Karlovna BARI	
			(1894) Heinz HOPF	
		~	(1900) Michail Alekseevich LAVRENTEV	
	20	\mathbf{S}	(1889) Edwin Powell HUBBLE	
		~	(1924) Benoit MANDELBROT	
	21	S	(1867) Dimitri SINTSOV	
47	22	М	(1803) Giusto BELLAVITIS	
		-	(1840) Emile Michel Hyacinte LEMOINE	
	23	Т	(1820) Issac TODHUNTER	D1 50 5 -
			(1616) John WALLIS	RM070
	a :		(1917) Elizabeth Leonard SCOTT	RM106
	24	W	(1909) Gerhard GENTZEN	
	a-	m	(1549) Duncan MacLaren Young SOMMERVILLE	
	25	Т	(1873) Claude Louis MATHIEU	
		F	(1841) Fredrich Wilhelm Karl Ernst SCHRODER	
	26	\mathbf{F}	(1946) Enrico BOMBIERI	
	a –	~	(1894) Norbert WIENER	
	27	\mathbf{S}	(1867) Arthur Lee DIXON	
	28	\mathbf{S}	(1898) John WISHART	
48	29	М	(1803) Christian Andreas DOPPLER	
			(1879) Nikolay Mitrofanovich KRYLOV	
			(1849) Horace LAMB	
	30	Т	(1549) Sir Henry SAVILE	

6th IMO (1964) - 5

5 points in a plane are situated so that no two of the lines joining a pair of points are coincident, parallel or perpendicular. Through each point lines are drawn perpendicular to each of the lines through two of the other 4 points. Determine the maximum number of intersections these perpendiculars can have.

Gauss Facts (Heath & Dolphin)

Gauss is neither a Frequentist nor a Bayesian. For Gauss, the probability is always 1.

Fermat once made Gauss angry. The result... Fermat's Last Theorem.

From a Serious Place Q: How many mathematicians does it take to

screw a light bulb? A: 0.999999999....

A professor is one who can speak on any subject – for precisely fifty minutes.

Norbert WIENER

The British Mathematical Colloquium consists of three days of mathematics with no dogs and no wives.

John Enry Constantine WHITEHEAD

A modern mathematical proof is not very different from a modern machine, or a modern test setup: the simple fundamental principles are hidden and almost invisible under a mass of technical details.

Hermann Klaus Hugo WEYL

[Maxwell asked whether he would like to see an experimental demonstration of conical refraction] No. I have been teaching it all my life, and I do not want to have my ideas upset.

Isaac TODHUNTER

Being a language, mathematics may be used not only to inform but also, among other things, to seduce.

The modern physicist is a quantum theorist on Monday, Wednesday, and Friday and a student of gravitational relativity theory on Tuesday, Thursday, and Saturday. On Sunday he is neither, but is praying to his God that someone, preferably himself, will find the reconciliation between the two views.

Benoit MANDELBROT

Algebra is generous: she often gives more than is asked for.

Jean D'ALEMBERT

The history of astronomy is a history of receding horizons.

Edwin HUBBLE



December

ļ	1	W	(1792) Nikolay Yvanovich LOBACHEVSKY	RM083
	2	Т	(1831) Paul David Gustav DU BOIS-RAYMOND	
			(1901) George Frederick James TEMPLE	
Î	3	\mathbf{F}	(1924) John BACKUS	
	0	-	(1903) Sidney GOLDSTEIN	
r.	4	\mathbf{S}	(1795) Thomas CARLYLE	
ł	5	s	(1901) Werner Karl HEISENBERG	
	9	5		
			(1868) Arnold Johannes Wilhelm SOMMERFELD	
49	6	Μ	(1682) Giulio Carlo FAGNANO dei Toschi	
	7	Т	(1647) Giovanni CEVA	
			(1830) Antonio Luigi Gaudenzio Giuseppe CREMONA	
			(1823) Leopold KRONECKER	
	8	W	(1508) Regnier GEMMA FRISIUS	
			(1865) Jaques Salomon HADAMARD	
			(1919) Julia Bowman ROBINSON	
	9	Т	(1917) Sergei Vasilovich FOMIN	
			(1883) Nikolai Nikolaievich LUZIN	
			(1906) Grace Brewster MURRAY HOPPER	
	10	\mathbf{F}	(1804) Karl Gustav Jacob JACOBI	
	10	•	(1815) Augusta Ada KING Countess of LOVELACE	RM059
1	11	\mathbf{S}	(1882) Max BORN	101000
ł	11	S	(1832) Max BORN (1832) Peter Ludwig Mejdell SYLOW	
50	12	M	(1724) Franz Ulrich Theodosius AEPINUS	
90	19	IVI	(1724) Franz Offich Theodosius AEFINOS (1887) George POLYA	DM101
	14	m		RM131
	14	T	(1546) Tycho BRAHE	DMOOD
	15	W	(1802) Janos BOLYAI	RM083
1	16	Т	(1804) Wiktor Yakovievich BUNYAKOWSKY	
	17	\mathbf{F}	(1900) Dame Mary Lucy CARTWRIGHT	
			(1835) Felice CASORATI	
			(1706) Gabrielle Emile Le Tonnelier de Breteuil du	
			CHATELET	
ļ			(1842) Marius Sophus LIE	
	18	\mathbf{S}	(1917) Roger LYNDON	
	19	\mathbf{S}	(1783) Charles Julien BRIANCHON	
			(1854) Marcel Louis BRILLOUIN	
51	20	М	(1875) Francesco Paolo CANTELLI	
			(1648) Tommaso CEVA	
			(1494) Oronce FINE	
	21	Т	(1878) Jan LUKASIEVIKZ	
			(1932) John Robert RINGROSE	
	22	W	(1877) Tommaso BOGGIO	
			(1824) Francesco BRIOSCHI	
			(1859) Otto Ludwig HOLDER	
			(1887) Srinivasa Aiyangar RAMANUJAN	
ĺ	23	Т	(1872) Georgii Yurii PFEIFFER	
Ì	2 4	F	(1822) Charles HERMITE	RM095
1		-	(1868) Emmanuel LASKER	
Ì	25	\mathbf{S}	(1642) Isaac NEWTON	RM071
	40	0	(1900) Antoni ZYGMUND	101071
ł	26	\mathbf{S}	(1791) Charles BABBAGE	RM059
	20	6	(1937) John Horton CONWAY	RM119
			(1780) Mary Fairfax Greig SOMERVILLE	IIIII I J
50	97	м	(1780) Mary Fairiax Greig SOMERVILLE (1654) Jacob (Jacques) BERNOULLI	DMOOD
52	27	м		RM093
		m	(1571) Johannes KEPLER	
1	28	Т	(1808) Athanase Louis Victoire DUPRÈ	
1			(1882) Arthur Stanley EDDINGTON	DMAG
ł		***	(1903) John von NEUMANN	RM107
	29	W	(1856) Thomas Jan STIELTJES	
	30	Т	(1897) Stanislaw SAKS	
	31	\mathbf{F}	(1952) Vaughan Frederick Randall JONES	
1			(1872) Volodymyr LEVIYTSKY	
			(1896) Carl Ludwig SIEGEL	

ABCD is a tetrahedron and D_0 is the centroid of ABC. Lines parallel to DD_0 are drawn through A, B and C and meet the planes BCD, CAD and ABD in A_0 , B_0 and C

 C_0 respectively. Prove that the volume of ABCD is one-third of the volume of $A_0B_0C_0D_0$. Is the result true if D_0 is an arbitrary point inside ABC?.

Gauss Facts (Heath & Dolphin)

In Gauss' mind, there is no such branch of mathematics as "Number Theory". This is because he knows it as "Number Facts".

From a Serious Place

6th IMO (1964) - 6

Q: What's a polar bear?

A: A rectangular bear after a coordinate transform...

In mathematics you don't understand things. You just get used to them.

John VON NEUMANN

In order to translate a sentence from English into French two things are necessary. First, we must understand thoroughly the English sentence. Second, we must be familiar with the forms of expression peculiar to the French language. The situation is very similar when we attempt to express in mathematical symbols a condition proposed in words. First, we must understand thoroughly the condition. Second, we must be familiar with the forms of mathematical expression.

There is no branch of mathematics, however abstract, which may not some day be applied to phenomena of the real world.

Nikolay Yvanovich LOBACHEVSKY

The shortest path between two truths in the real domain passes through the complex domain.

Jaques Salomon HADAMARD

Mathematical discoveries, like springtime violets in the woods, have their season which no human can hasten or retard.

Janos BOLYAI

An expert is someone who knows some of the worst mistakes that can be made in his subject, and how to avoid them.

Werner Karl HEISENBERG

George PÒLYA