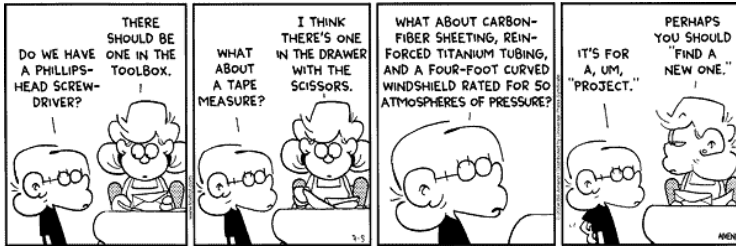
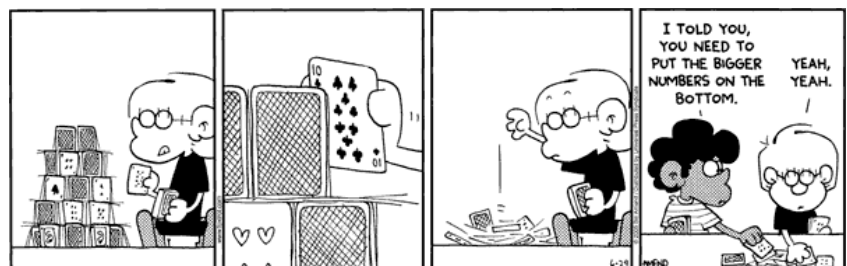


$$x^4 - 8192x^3 + 25163864x^2 - 34351710208x + 17583965554320 = 0$$



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52	1	D	(1803) Guglielmo LIBRI Carucci dalla Sommaja (1878) Agner Krarup ERLANG (1894) Satyendranath BOSE (1912) Boris GNEDENKO	
1	2	L	(1822) Rudolf Julius Emmanuel CLAUSIUS (1905) Lev Genrichovich SHNIRELMAN (1938) Anatoly SAMOILENKO	
	3	M	(1917) Yuri Alexeievich MITROPOLSHY	
	4	M	(1643) Isaac NEWTON	
	5	G	(1838) Marie Ennemond Camille JORDAN (1871) Federigo ENRIQUES (1871) Gino FANO	
	6	V	(1807) Jozeph Mitza PETZVAL (1841) Rudolf STURM	
	7	S	(1871) Felix Edouard Justin Emile BOREL (1907) Raymond Edward Alan Christopher PALEY	
	8	D	(1888) Richard COURANT (1924) Paul Moritz COHN (1942) Stephen William HAWKING	
	2	9	L	(1864) Vladimir Adreievich STELKOY
10		M	(1875) Issai SCHUR (1905) Ruth MOUFANG	
11		M	(1545) Guidobaldo DEL MONTE (1707) Vincenzo RICCATI (1734) Achille Pierre Dionis DU SEJOUR	
12		G	(1906) Kurt August HIRSCH	
13		V	(1864) Wilhelm Karl Werner Otto Fritz Franz WIEN (1876) Luther Pfahler EISENHART (1876) Erhard SCHMIDT	
14		S	(1902) Alfred TARSKI	
15		D	(1704) Johahn CASTILLON (1717) Matthew STEWART (1850) Sofia Vasiljevna KOVALEVSKAJA	
3	16	L	(1801) Thomas KLAUSEN	
	17	M	(1847) Nikolay Egorovich ZUKOWSKY (1858) Gabriel KOENIGS	
	18	M	(1856) Luigi BIANCHI (1880) Paul EHRENFEST	
	19	G	(1813) Rudolf Friedrich Alfred CLEBSCH (1879) Guido FUBINI (1908) Aleksandr Gennadievich KUROK	
	20	V	(1775) Andre' Marie AMPERE (1895) Gabor SZEGO (1904) Renato CACCIOPOLI	
	21	S	(1846) Pieter Hendrik SCHOUTE (1915) Yuri Vladimirovich LINNIK	
	22	D	(1592) Pierre GASSENDI (1908) Lev Davidovich LANDAU	
	4	23	L	(1840) Ernst ABBE (1862) David HILBERT
24		M	(1891) Abram Samoilovitch BESICOVITCH (1914) Vladimir Petrovich POTAPOV	
25		M	(1627) Robert BOYLE (1736) Joseph-Louis LAGRANGE (1843) Karl Herman Amandus SCHWARTZ	
26		G	(1799) Benoit Paul Emile CLAPEYRON	
27		V	(1832) Charles Lutwidge DODGSON	
28		S	(1701) Charles Marie de LA CONDAMINE (1892) Carlo Emilio BONFERRONI	
29		D	(1817) William FERREL (1888) Sidney CHAPMAN	
5		30	L	(1619) Michelangelo RICCI
		31	M	(1715) Giovanni Francesco FAGNANO dei Toschi (1841) Samuel LOYD (1896) Sofia Alexandrovna JANOWSKAJA

IMO 1959 - 1

Provare che

$$\frac{21n + 4}{14n + 3}$$

$$14n + 3$$

è irriducibile per qualsiasi valore del numero naturale  $n$ .

La matematica è il 40% formule, il 40% dimostrazione e il 40% immaginazione

INformazione Pubblicitaria

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**SORGENTE DI CALORE:** Il nostro modello standard di sorgente di calore ha ora capacità infinita ( $\pm 2\%$ ); se avete tempo ed energia siete invitati a provarne la capacità.

**SOLO \$3,000.00 o.**

*"The proof of the Hilbert Basis Theorem is not mathematics; it is theology."*

Camille JORDAN

*"It's very good jam," said the Queen.*

*"Well, I don't want any to-day, at any rate."*

*"You couldn't have it if you did want it," the Queen said. "The rule is jam tomorrow and jam yesterday but never jam to-day."*

*"It must come sometimes to "jam to-day,"" Alice objected.*

*"No it can't," said the Queen. "It's jam every other day; to-day isn't any other day, you know."*

*"I don't understand you," said Alice. "It's dreadfully confusing."*

Charles DOGSON

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

David HILBERT

*"A mathematician's reputation rests on the number of bad proofs he has given"*

Abram BESICOVITCH

5	1	M	(1900) John Charles BURKILL	
	2	G	(1522) Lodovico FERRARI	
	3	V	(1893) Gaston Maurice JULIA	
	4	S	(1905) Eric Christopher ZEEMAN	
	5	D	(1757) Jean Marie Constant DUHAMEL	
6	6	L	(1612) Antoine ARNAULD (1695) Nicolaus (II) BERNOULLI	
	7	M	(1877) Godfried Harold HARDY (1883) Eric Temple BELL	
	8	M	(1700) Daniel BERNOULLI (1875) Francis Ysidro EDGEWORTH	
	9	G	(1775) Farkas Wolfgang BÖLYAI (1907) Harold Scott Mac Donald COXETER	
	10	V	(1747) Aida YASUAKI	
	11	S	(1800) William Henry Fox TALBOT (1839) Josiah Willard GIBBS (1915) Richard Wesley HAMMING	
	12	D	(1914) Hanna CAEMMERER NEUMANN	
	7	13	L	(1805) Johann Peter Gustav Lejeune DIRICHLET
14		M	(1468) Johann WERNER (1849) Hermann HANKEL (1896) Edward Artur MILNE	
15		M	(1564) Galileo GALILEI (1861) Alfred North WHITEHEAD (1946) Douglas HÖFSTADTER	
16		G	(1822) Francis GALTON (1853) Georgio RICCI-CURBASTRO (1903) Beniamino SEGRE	
17		V	(1890) Sir Ronald Aymler FISHER (1891) Adolf Abraham Halevi FRAENKEL	
18		S	(1404) Leon Battista ALBERTI	
19		D	(1473) Nicolaus COPERNICUS	
8		20	L	(1844) Ludwig BOLTZMANN
		21	M	(1591) Girard DESARGUES (1915) Evgenni Michailovitch LIFSHITZ
	22	M	(1903) Frank Plumpton RAMSEY	
	23	G	(1583) Jean-Baptiste MORIN (1951) Shigefumi MORI	
	24	V	(1871) Felix BERNSTEIN	
	25	S	(1827) Henry WATSON	
	26	D	(1786) Dominique Francois Jean ARAGO	
9	27	L	(1881) Luitzen Egbertus Jan BROUWER	
	28	M	(1735) Alexandre Theophile VANDERMONDE	
			(1860) Herman HOLLERITH	

### IMO 1959 - 2

Per quali valori reali di  $x$  è

$$\sqrt{x + \sqrt{2x-1}} + \sqrt{x - \sqrt{2x-1}} = A,$$

posto:

$$A = \sqrt{2},$$

$$A = 1,$$

$$A = 2,$$

quando solo valori non negativi sono ammessi nelle radici quadrate e quando delle radici si consideri sempre il valore non negativo?

...è stato scoperto un nuovo numero primo, quattro volte più grande del record precedente.

CNN

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**SOLUZIONE TRIVIALE:** Perfetta per ripulire quei problemi supposti insolubili che invadono il vostro laboratorio!

**SOLO \$10.00/lt.**

*"Common sense is not really so common"*

Antoine ARNAUD

*"Archimedes will be remembered when Aeschylus is forgotten, because languages die and mathematical ideas do not. "Immortality" may be a silly word, but probably a mathematician has the best chance of whatever it may mean."*

Godfried HARDY

*"it would be better for the true physics if there were no mathematicians on earth"*

Daniel BERNOULLI

*"Epur si muove"*

Galileo GALILEI

*"Euler calculated without effort, just as men breathe, as eagles sustain themselves in the air"*

Dominique ARAGO



9	1	M	(1611) John PELL	
	2	G	(1836) Julius WEINGARTEN	
	3	V	(1838) George William HILL (1845) Georg CANTOR	
	4	S	(1822) Jules Antoine LISSAJUS	
	5	D	(1512) Gerardus MERCATOR (1759) Benjamin GOMPERTZ (1817) Angelo GENOCCHI	
10	6	L	(1866) Ettore BORTOLOTTI	
	7	M	(1792) William HERSCHEL (1824) Delfino CODAZZI	
	8	M	(1851) George CHRYSTAL	
	9	G	(1818) Ferdinand JOACHIMSTHAL (1900) Howard Hathaway Aiken	
	10	V	(1864) William Fogg OSGOOD	
	11	S	(1811) Urbain Jean Joseph LE VERRIER (1853) Salvatore PINCHERLE	
	12	D	(1685) George BERKELEY (1824) Gustav Robert KIRKHOFF (1859) Ernesto CESARO	
	11	13	L	(1861) Jules Joseph DRACH (1957) Rudy D'ALEMBERT
14		M	(1864) Jozef KURSCHAK (1879) Albert EINSTEIN	
15		M	(1860) Walter Frank Raphael WELDON (1868) Grace CHISOLM YOUNG	
16		G	(1750) Caroline HERSCHEL (1789) Georg Simon OHM (1846) Magnus Gosta MITTAG-LEFFLER	
17		V	(1876) Ernest Benjamin ESCLANGON (1897) Charles FOX	
18		S	(1640) Philippe de LA HIRE (1690) Christian GOLDBACH (1796) Jacob STEINER	
19		D	(1862) Adolf KNESER (1910) Jacob WOLFOVITZ	
12		20	L	(1840) Franz MERTENS (1884) Philip FRANCK (1938) Sergi Petrovich NOVIKOV
		21	M	(1768) Jean Baptiste Joseph FOURIER (1884) George David BIRKHOFF
		22	M	(1917) Irving KAPLANSKY
	23	G	(1754) Georg Freiherr von VEGA (1882) Emmy Amalie NOETHER (1897) John Lighton SYNGE	
	24	V	(1809) Joseph LIOUVILLE (1948) Sun-Yüng (Alice) CHANG	
	25	S	(1538) Christopher CLAUDIUS	
	26	D	(1848) Konstantin ADREEV (1913) Paul ERDOS	
	13	27	L	(1857) Karl PEARSON
28		M	(1749) Pierre Simon de LAPLACE	
29		M	(1825) Francesco FAA' DI BRUNO (1873) Tullio LEVI-CIVITA (1896) Wilhelm ACKERMAN	
30		G	(1892) Stefan BANACH	
31		V	(1596) Rene' DESCARTES	

### IMO 1959 - 3

Siano  $a, b, c$  numeri reali. Data l'equazione per  $\cos x$ :

$$a \cos^2 x + b \cos x + c = 0,$$

formare un'equazione quadratica in  $\cos 2x$  le cui radici abbiano gli stessi valori in  $x$ . Confrontare le equazioni in  $\cos x$  e  $\cos 2x$  per:

$$a = 4,$$

$$b = 2,$$

$$c = -1.$$

La matematica è come l'amore. L'idea di partenza è semplice, poi tutto diventa complicato

Informazione pubblicitaria

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**MOTORI DI CARNOT:** Questi motori sono completamente silenziosi e non necessitano lubrificazione. Efficienza garantita: (1 - Tc/Th). Posso funzionare a ciclo inverso per rinfrescare il vostro laboratorio in estate. Per i migliori risultati, si consiglia l'utilizzo della nostra sorgente di calore.

**SOLO \$3,000.00 o.**

"And what are these fluxions? The velocities of evanescent increments? They are neither finite quantities, nor quantities infinitely small, nor yet nothing. May we not call them ghosts of departed quantities?"

George BERKELEY

"Common sense is nothing more than a deposit of prejudices laid down in the mind before you reach eighteen."

Albert EINSTEIN

"We [he and Halmos] share a philosophy about linear algebra: we think basis-free, we write basis-free, but when the chips are down we close the office door and compute with matrices like fury."

Irving KAPLANSKY

"A Mathematician is a machine for turning coffee into theorems."

Paul ERDOS

"What we know is not much. What we do not know is immense."

Pierre Simon de LAPLACE

13	1	S	(1640) Georg MOHR (1776) Marie-Sophie GERMAIN (1895) Alexander Craig AITKEN	
	2	D	(1934) Paul Joseph COHEN	
14	3	L	(1835) John Howard Van AMRINGE (1892) Hans RADEMACHER (1900) Albert Edward INGHAM (1909) Stanislaw Marcin ULAM (1971) Alice RIDDLE	
	4	M	(1809) Benjamin PEIRCE (1842) Francois Edouard Anatole LUCAS (1949) Shing-Tung YAU	
	5	M	(1588) Thomas HOBBS (1607) Honore` FABRI (1622) Vincenzo VIVIANI (1869) Sergi Alexeievich CHAPLYGIN	
	6	G		
	7	V	(1768) Francois Joseph FRANCAIS	
	8	S	(1903) Marshall Harvey STONE	
	9	D	(1791) George PEACOCK (1816) Charles Eugene DELAUNAY (1919) John Presper HECKERT	
	15	10	L	(1857) Henry Ernest DUDENEY
		11	M	(1953) Andrew John WILES
12		M	(1794) Germinal Pierre DANDELIN (1852) Carl Louis Ferdinand Von LINDEMANN (1903) Jan TINBERGEN	
13		G	(1728) Paolo FRISI (1813) Duncan Parquharson GREGORY (1879) Francesco SEVERI	
14		V	(1629) Christiaan HUYGENS	
15		S	(1452) Leonardo da VINCI (1548) Pietro Antonio CATALDI (1707) Leonhard EULER (1809) Herman Gunther GRASSMANN	
16		D	(1682) John HADLEY (1823) Ferdinand Gotthold Max EISENSTEIN	
16		17	L	(1798) Etienne BOBILLIER (1853) Arthur Moritz SCHONFLIES
	18	M	(1907) Lars Valerian AHLFORS (1918) Hsien Chung WANG (1949) Charles Louis FEFFERMAN	
	19	M	(1880) Evgeny Evgenievich SLUTSKY (1883) Richard VIN MISES (1901) Kiyoshi OKA (1905) Charles EHRESMANN	
	20	G	(1839) Francesco SIACCI	
	21	V	(1652) Michel ROLLE (1774) Jean Baptiste BIOT (1875) Teiji TAKAGI	
	22	S	(1811) Otto Ludwig HESSE (1887) Harald August BOHR	
	23	D	(1858) Max Karl Ernst Ludwig PLANCK	
	17	24	L	(1863) Giovanni VAILATI
		25	M	(1849) Felix Christian KLEIN (1900) Wolfgang PAULI (1903) Andrei Nicolayevich KOLMOGOROV
		26	M	(1889) Ludwig Josef Johan WITTENGSTEIN
27		G	(1755) Marc-Antoine PARSEVAL des Chenes	
28		V	(1906) Kurt GODEL	
29		S	(1854) Jules Henri POINCARÉ	
30		D	(1777) Johann Carl Friedrich GAUSS (1916) Claude Elwood SHANNON	

### IMO 1959 - 4

Data la lunghezza  $|AC|$ , costruire un triangolo  $ABC$  con angolo  $\hat{A}BC = 90^\circ$ , e la mediana  $BM$  soddisfacente:

$$BM^2 = AB \cdot BC.$$

Nella matematica moderna l'algebra è diventata così importante che presto i numeri avranno solo un significato simbolico

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**RASOIO di OCCAM:** Il modello base presentato precedentemente da Occam è stato ampiamente perfezionato dagli artigiani Svizzeri nella nostra manifattura di Hong Kong. Lame in acciaio svedese (importate dal Giappone). Ottime per tagliare complicazioni, nastro adesivo extraforte e per stroncare la teoria preferita dei colleghi.

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**Lame di ricambio: \$5/doz.**

*"The notion of a set is too vague for the continuum hypothesis to have a positive or negative answer."*

Paul Joseph COHEN

*"Knowing what is big and what is small is more important than being able to solve partial differential equations"*

Stanislaw Marcin ULAM

*"You treat world history as a mathematician does mathematics, in which nothing but laws and formulae exist, no reality, no good and evil, no time, no yesterday, no tomorrow, nothing but an eternal shallow, mathematical present."*

Otto Ludwig HESSE

*"An important scientific innovation rarely makes its way by gradually winning over and converting its opponents: it rarely happens that Saul becomes Paul. What does happen is that its opponents gradually die out, and that the growing generation is familiarised with the ideas from the beginning"*

Max Karl Ernst Ludwig PLANCK

*"Everyone knows what a curve is, until he has studied enough mathematics to become confused through the countless number of possible exceptions."*

Felix KLEIN

*"The fact that the author thinks slowly is not serious, but the fact that he publishes faster than he thinks is inexcusable."*

Wolfgang PAULI

18	1	L	(1825) Johann Jacob BALMER
	2	M	(1860) D'Arcy Wentworth THOMPSON (1905) Kazimierz ZARANKIEWITZ
	3	M	(1842) Otto STOLZ (1860) Vito VOLTERRA
	4	G	(1845) William Kingdon CLIFFORD
	5	V	(1833) Lazarus Emmanuel FUCHS (1897) Francesco Giacomo TRICOMI
	6	S	(1872) Willem DE SITTER (1906) Andre' VEIL
	7	D	(1926) Alexis Claude CLAIRAUT (1854) Giuseppe VERONESE (1881) Ebenezer CUNNINGHAM (1896) Pavel Sergeievich ALEXANDROV
19	8	L	(1859) Johan Ludvig William Valdemar JENSEN
	9	M	(1746) Gaspard MONGE (1876) Gilbert Ames BLISS
	10	M	(1788) Augustin Jean FRESNEL (1847) William Karl Joseph KHLING (1958) Piotr Rizerovich SILVERBRAHMS
	11	G	(1918) Richard Phillips FEYNMAN
	12	V	(1845) Pierre Rene' Jean Baptiste Henry BROCARD (1902) Frank YATES
	13	S	(1750) Lorenzo MASCHERONI
	14	D	(1832) Rudolf Otto Sigmund LIPSCHITZ (1863) John Charles FIELDS
20	15	L	(1939) Brian HARTLEY
	16	M	(1718) Matia Gaetana AGNESI (1821) Pafnuti Lvovi CHEBYSHEV
	17	M	
	18	G	(1850) Oliver HEAVISIDE (1892) Bertrand Arthur William RUSSELL
	19	V	(1919) Georgii' Dimitrievich SUVOROV
	20	S	(1861) Henry Seely WHITE
	21	D	(1471) Albrecht DURER (1792) Gustave Gaspard de CORIOLIS
21	22	L	(1865) Alfred Cardew DIXON
	23	M	(1914) Lipa BERS
	24	M	
	25	G	(1838) Karl Mikailovich PETERSON
	26	V	(1667) Abraham DE MOIVRE (1896) Yuri Dimitrievich SOKOLOV
	27	S	(1862) John Edward CAMPBELL
	28	D	(1676) Jacopo Francesco RICCATI (1710) Johann (II) BERNOULLI
22	29	L	(1882) Harry BATEMAN
	30	M	(1814) Eugene Charles CATALAN
	31	M	(1926) John KEMENY

### IMO 1959 - 5

Un punto arbitrario  $M$  è scelto all'interno del segmento  $AB$ . I quadrati  $AMCD$  e  $MBEF$  sono costruiti dalla stessa parte di  $AB$ . Le circonferenze circoscritte a questi quadrati, con centri  $P$  e  $Q$ , si intersecano in  $M$  e  $N$ .

- (a) Provare che  $AF$  e  $BC$  si intersecano in  $N$ ;  
 (b) provare che le linee  $MN$  passano da un punto fisso  $S$ , (independente da  $M$ );  
 (c) trovare il luogo dei punti medi dei segmenti  $PQ$  al variare di  $M$ .

"Attenzione, il numero che avete composto è immaginario. Ruotate il vostro telefono di 90 gradi e riprovate.

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**CD "Lab Music": Include:**

*Harmoniae Mundi*, di J. Kepler  
*Mysterium Cosmographicum* di J. Kepler  
*L'Oscillatore Armonico*, di E. Schrödinger

**SOLO \$30.00 cad.**

"Nature is not embarrassed by difficulties of analysis."

Augustin Jean FRESNEL

"Now one may ask, "What is mathematics doing in a physics lecture?" We have several possible excuses: first, of course, mathematics is an important tool, but that would only excuse us for giving the formula in two minutes. On the other hand, in theoretical physics we discover that all our laws can be written in mathematical form; and that this has a certain simplicity and beauty about it. But the real reason is that the subject is enjoyable, and although we humans cut nature up in different ways, and we have different courses in different departments, such compartmentalization is really artificial, and we should take our intellectual pleasures where we find them."

Richard Phillips FEYNMAN

"To isolate mathematics from the practical demands of the sciences is to invite the sterility of a cow shut away from the bulls. "

Pafnuti Lvovi CHEBYSHEV

"Mathematics is veri much like poetry. What makes a great poem is tat there is a great amount of thought expressed in very few words. in this sense, formulas like  $e^{\pi}+1=0$  are poems.

Lipa BERS



22	1	G	(1796) Sadi Leonard Nicolas CARNOT (1851) Edward Bailey ELLIOTT (1899) Edward Charles TITCHMARSH
	2	V	(1895) Tibor RADO`
	3	S	(1659) David GREGORY
	4	D	(1809) John Henry PRATT
23	5	L	(1814) Pierre LAurent WANTZEL (1819) John Couch ADAMS
	6	M	(1436) Johann Muller REGIOMONTANUS (1857) Aleksandr Michailovitch LYAPUNOV (1906) Max ZORN
	7	M	(1863) Edward Burr VAN VLECK
	8	G	(1625) Giovanni Domenico CASSINI (1858) Charlotte Angus SCOTT (1860) Alicia Boole STOTT
	9	V	(1885) John Edensor LITTLEWOOD
	10	S	(940) Mohammad ABUL Wafa Al-Buzjani (1887) Vladimir Ivanovich SMIRNOV
	11	D	(1937) David Bryant MUMFORD
24	12	L	(1888) Zygmunt JANYSZEWSKI
	13	M	(1831) James Clerk MAXWELL (1876) William Sealey GOSSET (Student) (1928) John Forbes NASH
	14	M	(1736) Charles Augustin de COULOMB (1856) Andrei Andreyevich MARKOV (1903) Alonzo CHURCH
	15	G	(1640) Bernard LAMY (1894) Nikolai Gregorievich CHEBOTARYOV
	16	V	(1915) John Wilder TUKEY
	17	S	(1898) Maurits Cornelius ESCHER
	18	D	(1858) Andrew Russell FORSYTH (1884) Charles Ernest WEATHERBURN
	25	19	L
20		M	(1873) Alfred LOEWY
21		M	(1781) Simeon Denis POISSON (1828) Giuseppe BRUNO
22		G	(1860) Mario PIERI (1864) Hermann MINKOWSKY (1910) Konrad ZUSE
23		V	(1912) Alan Mathison TURING
24		S	(1880) Oswald VEBLEN
25		D	(1908) William Van Orman QUINE
26	26	L	(1824) William THOMPSON, Lord Kelvin (1918) Yudel Leo LUKE
	27	M	(1806) Augustus DE MORGAN
	28	M	(1875) Henri Leon LEBESGUE
	29	G	(1888) Aleksandr Aleksandrovich FRIEDMANN
	30	V	(1791) Felix SAVART

### IMO 1959 - 6

I piani  $P$  e  $Q$  non sono paralleli. Il punto  $A$  giace su  $P$  ma non su  $Q$ , e il punto  $C$  giace su  $Q$  ma non su  $P$ . Costruire i punti  $B$  in  $P$  e  $D$  in  $Q$  tali che il quadrilatero  $ABCD$  soddisfi le seguenti condizioni:

- (1) giace su un piano,
- (2) i vertici sono nell'ordine  $A, B, C, D$ ,
- (3) è un trapezoide isoscele con  $AB$  parallelo a  $CD$  (intendendo che  $AD = BC$ , ma  $AD$  non è parallelo a  $BC$  a meno che sia un quadrato), e
- (4) un cerchio può essere inscritto in  $ABCD$  toccando tutti i lati.

### Dizionario Scientifico

**Energia di Attivazione:** L'energia estraibile da una tazza di caffè

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**SOLO \$29.95+\$3 s.p.**

*"It can be of no practical use to know that  $\pi$  is irrational, but if we can know, it surely would be intolerable not to know".*

Edward Charles TITCHMARSH

*"What I give form to in daylight is only one per cent of what I have seen in darkness"*

Maurits Cornelius ESCHER

*"The more I see of men, the better I like my dog"*

Blaise PASCAL

*"Science is a differential equation. Religion is a boundary condition"*

Alan Mathison TURING

*"In my opinion, a mathematician, in so far as he is a mathematician, need not preoccupy himself with philosophy -- an opinion, moreover, which has been expressed by many philosophers."*

Henri LEBESGUE

26	1	S	(1643) Gottfried Wilhelm von LEIBNIZ (1788) Jean Victor PONCELET	
	2	D	(1820) William John Racquorn RANKINE (1852) William BURNSIDE	
27	3	L	(1807) Ernest Jean Philippe Fauque de JONQUIERE (1897) Jesse DOUGLAS	
	4	M	(1906) Daniel Edwin RUTHERFORD (1917) Michail Samuilovich LIVSIC	
	5	M		
	6	G	(1849) Alfred Bray KEMPE	
	7	V	(1816) Johann Rudolf WOLF (1906) William FELLER (1922) Vladimir Aleksandrovich MARCHENKO	
	8	S	(1760) Christian KRAMP	
	9	D	(1845) George Howard DARWIN	
	28	10	L	(1862) Roger COTES (1868) Oliver Dimon KELLOGG
		11	M	(1857) Sir Joseph LARMOR (1890) Giacomo ALBANESE
12		M	(1875) Ernest Sigismund FISCHER (1895) Richard BUCKMINSTER FULLER	
13		G	(1527) John DEE (1741) Karl Friedrich HINDENBURG	
14		V		
15		S	(1865) Wilhelm WIRTINGER (1906) Adolph Andrej Pavlovich YUSHKEVICH	
16		D	(1678) Jakob HERMANN (1903) Irmgard FLUGGE-LOTZ	
29		17	L	(1831) Victor Mayer Amedee MANNHEIM (1837) Wilhelm LEXIS
	18	M	(1013) Hermann von REICHENAU (1635) Robert HOOKE (1853) Hendrich Antoon LORENTZ	
	19	M	(1768) Francois Joseph SERVOIS	
	20	G		
	21	V	(1620) Jean PICARD (1848) Emil WEYR (1849) Robert Simpson WOODWARD	
	22	S	(1784) Friedrich Wilhelm BESSEL	
	23	D	(1775) Etienne Louis MALUS (1854) Ivan SLEZYNSKY	
	30	24	L	(1851) Friedrich Herman SCHOTTKY (1871) Paul EPSTEIN (1923) Christine Mary HAMILL
		25	M	(1808) Johann Benedict LISTING
		26	M	(1903) Kurt MAHLER
27		G	(1667) Johann BERNOULLI (1801) George Biddel AIRY (1848) Lorand Baron von EOTVOS (1871) Ernst Friedrich Ferdinand ZERMELO	
28		V	(1954) Gerd FALTINGS	
29		S		
30		D		
31	31	L	(1704) Gabriel CRAMER (1712) Johann Samuel KOENIG	

### IMO 1960 - 1

Determinare tutti i numeri di 3 cifre  $N$  che sono divisibili per 11 e per i quali  $\frac{N}{11}$  è uguale alla somma dei quadrati delle cifre di  $N$

### Il meraviglioso mondo della chimica

Se non siete parte della soluzione, siete parte del precipitato

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**Simanek Ideal Scientific Equipment Company**

### Luglio - OFFERTA SPECIALE

Dalla nostra libreria: **UTILIZZI PRATICI DELL'IPOTESI NULLA**. Questo testo è essenziale per qualunque teorico che non abbia mai messo piede in un laboratorio. Tra gli argomenti: "Come complicare una teoria in modo efficace", "Risultati garantiti", "Cosa fare quando un'ipotesi non porta a nulla". Copertina rigida, 410 pagine.

**SOLO \$49.95 + \$4 s.p.**

*"When working on a problem, I never think about beauty; I think only of how to solve the problem. But when I have finished, if the solution is not beautiful, I know that it is wrong."*

Richard Buckminster FULLER

*"There is (gentle reader) nothing (the works of God only set apart) which so much beautifies and adorns the soul and mind of man as does knowledge of the good arts and sciences. ... Many ... arts there are which beautify the mind of man; but of all none do more garnish and beautify it than those arts which are called mathematical, unto the knowledge of which no man can attain, without perfect knowledge and instruction of the principles, grounds, and Elements of Geometry."*

John DEE

### "CEIHOSSOTTUU"

Anagram to establish priority in the discovery of elasticity: "Ut tensio, sic uis"

Robert HOOKE

*"[The infinitesimals] neither have nor can have theory; in practise it is a dangerous instrument in the hands of beginners ... anticipating, for my part, the judgement of posterity, I would predict that this method will be accused one day, and rightly, of having retarded the progress of the mathematical sciences."*

Francois Joseph SERVOIS

*"A quantity which is increased or decreased by an infinitely small quantity is neither increased nor decreased."*

Johann BERNOULLI



31	1	M	(1861) Ivar Otto BENDIXSON (1881) Otto TOEPLITZ	
	2	M	(1856) Ferdinand RUDIO (1902) Mina Spiegel REES	
	3	G	(1914) Mark KAC	
	4	V	(1805) Sir William Rowan HAMILTON (1838) John VENN	
	5	S	(1802) Niels Henrik ABEL	
	6	D	(1638) Nicolas MALEBRANCHE (1741) John WILSON	
32	7	L	(1868) Ladislaus Josephowitsch BORTKIEWITZ	
	8	M	(1902) Paul Adrien Maurice DIRAC	
	9	M	(1537) Francesco BAROZZI (Franciscus Barocius)	
	10	G	(1602) Gilles Personne de ROBERVAL	
	11	V	(1730) Charles BOSSUT (1842) Enrico D'OIDIO	
	12	S	(1882) Jules Antoine RICHARD (1887) Erwin Rudolf Josef Alexander SCHRODINGER	
	13	D	(1625) Erasmus BARTHOLIN (1819) George Gabriel STOKES (1861) Cesare BURALI-FORTELI	
33	14	L	(1530) Giovanni Battista BENEDETTI (1842) Jean Gaston DARBOUX (1865) Guido CASTELNUOVO (1866) Charles Gustave Nicolas de la VALLEE' POUSSIN	
	15	M	(1863) Aleksei Nikolaevich KRYLOV (1892) Louis Pierre Victor duc de BROGLIE (1901) Petr Sergeevich NOVIKOV	
	16	M	(12773) Louis Beniamin FRANCOEUR (1821) Arthur CAYLEY	
	17	G	(1601) Pierre de FERMAT	
	18	V	(1685) Brook TAYLOR	
	19	S	(1646) John FLAMSTEED (1739) Georg Simon KLUGEL	
	20	D	(1710) Thomas SIMPSON (1863) Corrado SEGRE (1882) Wacław SIERPINSKI	
	34	21	L	(1789) Augustin Louis CAUCHY
		22	M	(1647) Denis PAPIN
		23	M	(1683) Giovanni POLENI (1829) Moritz Benedikt CANTOR
24		G	(1561) Bartholomeo PITISCUS (1942) Karen Keskulla UHLENBECK	
25		V	(1561) Philip van LANSBERGE (1844) Thomas MUIR	
26		S	(1728) Johann Heinrich LAMBERT (1875) Giuseppe VITALI	
27		D	(1858) Giuseppe PEANO	
35	28	L	(1796) Ireneé Jules BIENAYME'	
	29	M	(1904) Leonard ROTH	
	30	M	(1856) Carle David Tolme' RUNGE (1906) Olga TAUSSKY-TODD	
	31	G	(1821) Hermann Ludwig Ferdinand von HELMHOLTZ	

### IMO 1960 - 2

Per quali valori reali di  $x$  è valida l'uguaglianza:

$$\frac{4x^2}{(1-\sqrt{1+2x})^2} < 2x+9?$$

### Il meraviglioso mondo della chimica

Quando c'è puzza di gas inodore, molto probabilmente è monossido di carbonio.

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### Agosto - OFFERTA SPECIALE

Dalla nostra libreria: in corso di stampa:

- **Proprietà e applicazioni pratiche dell'insieme vuoto.**
- **La forma dei punti geometrici.**
- **Fare il punto sul vettore nullo**

*"The whole form of mathematical thinking was created by Euler. It is only with the greatest of difficulty that one is able to follow the writings of any author preceding Euler, because it was not yet known how to let the formulas speak for themselves. This art Euler was the first to teach."*

Ferdinand RUDIO

*"There are surely worse things than being wrong, and being dull and pedantic are surely among them."*

Mark KAC

*"This result is too beautiful to be false; it is more important to have beauty in one's equations than to have them fit experiment."*

Paul Adrien Maurice DIRAC

*"And perhaps, posterity will thank me for having shown it that the ancients did not know everything."*

Pierre de FERMAT

*"Cubum autem in duos cubos, aut quadratoquadratum in duos quadratoquadratos, et generaliter nullam in infinitum ultra quadratum potestatem in duos ejusdem nominis fas est dividere: cujus rei demonstrationem mirabilem sane detexi. Hanc marginis exiguitas non caperet"*

Pierre de FERMAT

*"Newton is, of course, the greatest of all Cambridge professors; he also happens to be the greatest disaster that ever befell not merely Cambridge mathematics in particular, but British mathematical science as a whole"*

Leonard ROTH

35	1	V	(1659) Joseph SAURIN (1835) William Stankey JEVONS	
	2	S	(1878) Mauriche Rene' FRECHET (1923) Rene' THOM	
	3	D	(1814) James Joseph SYLVESTER (1884) Solomon LEFSCHETZ (1908) Lev Semenovich PONTRYAGIN	
36	4	L	(1809) Luigi Federico MENABREA	
	5	M	(1667) Giovanni Girolamo SACCHERI (1725) Jean Etienne MONTUCLA	
	6	M	(1859) Boris Jakovlevich BUKREEV (1863) Dimitri Aleksandrovich GRAVE	
	7	G	(1707) George Louis Leclerc comte de BUFFON (1955) Efim ZELMANOV	
	8	V	(1584) Gregorius SAINT-VINCENT (1588) Marin MERSENNE	
	9	S	(1860) Frank MÖRLEY	
	10	D	(1839) Charles Sanders PEIRCE	
	37	11	L	(1623) Stefano degli ANGELI (1877) sir James Hopwood JEANS
		12	M	(1891) Antoine Andre' Louis REYNAUD (1900) Haskell Brooks CURRY
		13	M	(1873) Constantin CARATHEODORY (1885) Wilhelm Johann Eugen BLASCHKE
14		G	(1858) Henry Burchard FINE (1891) Ivan Matvëevich VINOGRADOV	
15		V	(973) Abu Arrayhan Muhammad ibn Ahmad AL BIRUNI (1886) Paul Pierre LEVY	
16		S	(1494) Francisco MAUROLICO (1736) Johann Nikolaus TETENS	
17		D	(1743) Marie Jean Antoine Nicolas de Caritat de CONDORCET (1826) Georg Friedrich Bernhard RIEMANN	
38	18	L	(1752) Adrien Marie LEGENDRE	
	19	M	(1749) Jean Baptiste DELAMBRE	
	20	M	(1842) Alexander Wilhelm von BRILL (1861) Frank Nelson COLE	
	21	G	(1899) Juliusz Pawel SCHAUDER	
	22	V	(1765) Paolo RUFFINI (1769) Louis PUISSANT (1809) Jaques Charles Francois STURM	
	23	S	(1768) William WALLACE (1900) David van DANTZIG	
	24	D	(1501) Girolamo CARDANO (1625) Johan DE WITT (1801) Michail Vasilevich OSTROGRADSKI	
	39	25	L	(1819) George SALMON (1888) Stefan MAZURKIEWICZ
26		M	(1688) Willem Jakob 's GRAVESANDE (1854) Percy Alexander MACMAHON (1891) Hans REICHENBACH	
27		M	(1855) Paul Emile APPEL (1876) Earle Raymond HEDRICK (1919) James Hardy WILKINSON	
28		G	(1698) Pierre Louis Moreau de MAUPERTUIS (1761) Ferdinand Francois Desire' Budan de BOISLAURENT (1873) Julian Lowell COOLIDGE	
29		V	(1561) Adriaan van ROOMEN (1812) Adolph GOPEL	
30		S	(1775) Robert ADRAIN (1829) Joseph WOLSTENHOLME (1883) Ernst HELLINGER	

IMO 1960 - 3

Nel triangolo rettangolo  $ABC$ , l'ipotenusa  $BC$ , di lunghezza  $a$ , è divisa in  $n$  parti uguali, con  $n$  intero dispari. La parte centrale sottende un angolo  $\alpha$  in  $A$ .  $h$  è la distanza perpendicolare tra  $A$  e  $BC$ . Provare che:

$$\tan \alpha = \frac{4nh}{a^2 - a}$$

La matematica è come l'amore. Un'idea semplice, che può diventare complessa.

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**Settembre - OFFERTA SPECIALE**

**PUNTI MATERIALI:** Irrinunciabili per qualsiasi dimostrazione in meccanica classica! I nostri punti materiali (numero intero di grammi) sono disponibili nelle masse da 1g a 10-Kg; SCONTO sulla scatola da 10 Kg!

**SOLO \$ 11.65/10 Kg**

"The importance of the "New Mathematics" lies mainly in the fact that it has taught us the difference between the disc and the circle."

Rene' THOM

"If it's just turning the crank it's algebra, but if it's got an idea in it, it's topology."

Solomon LEFSCHETZ

"This branch of mathematics [Probability] is the only one, I believe, in which good writers frequently get results which are entirely erroneous."

Charles Sanders PEIRCE

"We may as well cut out the group theory. That is a subject that will never be of any use in physics."

sir James Hopwood JEANS

"If error is corrected whenever it is recognised, the path of error is the path of truth."

Hans REICHENBACH

[Upon proving that the best betting strategy for "Gambler's Ruin" was to bet all on the first trial.]

"It is true that a man who does this is a fool. I have only proved that a man who does anything else is an even bigger fool."

Julian Lowell COOLIDGE

39	1	D	(1671) Luigi Guido GRANDI (1898) Bela KEREKJARTO'
40	2	L	(1825) John James WALKER (1908) Arthur ERDELYI
	3	M	(1944) Pierre Rene' DELIGNE
	4	M	(1759) Louis Francois Antoine ARBOGAST (1797) Jerome SAVARY
	5	G	(1732) Nevil MASKELYNE (1781) Bernhard Placidus Johann Nepomuk BOLZANO (1861) Thomas Little HEATH
	6	V	(1552) Matteo RICCI (1831) Julius Wilhelm Richard DEDEKIND- (1908) Sergei Lvovich SOBOLEV
	7	S	(1885) Niels BOHR
	8	D	(1908) Hans Arnold HEILBRONN
	41	9	L
10		M	(1861) Heinrich Friedrich Karl Ludwig BURKHARDT
11		M	(1675) Samuel CLARKE (1777) Barnabe BRISSON (1885) Alfred HAAR (1910) Cahit ARF
12		G	(1860) Elmer SPERRY
13		V	(1890) Georg FEIGL (1893) Kurt Werner Friedrich REIDEMEISTER (1932) John Griggs THOMSON
14		S	(1687) Robert SIMSON (1801) Joseph Antoine Ferdinand PLATEAU (1868) Alessandro PADDA
15		D	(1608) Evangelista TORRICELLI (1735) Jesse RAMSDEN (1776) Peter BARLOW
42		16	L
	17	M	(1759) Jacob (II) BERNOULLI (1888) Paul Isaac BERNAYS
	18	M	(1741) John WILSON
	19	G	(1903) Jean Frederic Auguste DELSARTE (1910) Subrahmanyan CHANDRASEKHAR
	20	V	(1632) Sir Christopher WREN (1863) William Henry YOUNG (1865) Aleksandr Petrovich KOTELNIKOV
	21	S	(1677) Nicolaus (I) BERNOULLI (1823) Enrico BETTI (1855) Giovan Battista GUCCIA (1893) William Leonard FERRAR
	22	D	(1587) Joachim JUNGIUS (1895) Rolf Herman NEVANLINNA (1907) Sarvadaman CHOWLA
	43	23	L
24		M	(1804) Wilhelm Eduard WEBER (1873) Edmund Taylor WITAKER
25		M	(1811) Evariste GALOIS
26		G	(1849) Ferdinand Georg FROBENIUS (1857) Charles Max MASON (1911) Shiing-Shen CHERN
27		V	(1678) Pierre Remond de MONTMORT (1856) Ernest William HOBSON
28		S	(1804) Pierre Francois VERHULST
29		D	(1925) Klaus ROTH
44		30	L
	31	M	(1815) Karl Theodor Wilhelm WEIERSTRASS

### IMO 1960 - 4

Costruire il triangolo  $ABC$  date le lunghezze delle altezze da  $A$  e  $B$  e la lunghezza della mediana da  $A$ .

...se non fosse stato per Edison, adesso guarderemmo la TV a lume di candela...

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**Ottobre - OFFERTA SPECIALE**

**FLUIDO PERFETTO:** Siamo gli unici fornitori di questo liquido (prodotto sotto licenza e supervisione della Bernoulli International). Viscosità pari a zero e assolutamente incompressibile.

**SOLO \$ 85/litro**

*"An expert is a man who has made all the mistakes which can be made in a very narrow field"*

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

*"The Council of the Royal Society is a collection of men who elect each other to office and then dine together at the expense of this society to praise each other over wine and give each other medals."*

Charles BABBAGE

*"Unfortunately what is little recognized is that the most worthwhile scientific books are those in which the author clearly indicates what he does not know; for an author most hurts his readers by concealing difficulties."*

Evariste GALOIS

*"It is true that a mathematician who is not also something of a poet will never be a perfect mathematician."*

Karl Theodor Wilhelm WEIERSTRASS



44	1	M	(1535) Giambattista DELLA PORTA	
	2	G	(1815) George BOOLE	
	3	V	(1867) Martin Wilhelm KUTTA (1878) Arthur Byron COBLE	
	4	S	(1744) Johann (III) BERNOULLI (1865) Pierre Simon GIRARD	
	5	D	(1848) James Whitbread Lee GLAISHER (1930) John Frank ADAMS	
45	6	L	(1781) Giovanni Antonio Amedeo PLANA	
	7	M	(1660) Thomas Fantet DE LAGNY (1799) Karl Heinrich GRAFFE (1898) Raphael SALEM	
	8	M	(1656) Edmond HALLEY (1846) Eugenio BERTINI (1848) Friedrich Ludwig Gottlob FREGE (1854) Johannes Robert RYDBERG (1869) Felix HAUSDORFF	
	9	G	(1847) Carlo Alberto CASTIGLIANO (1885) Theodor Franz Eduard KALUZA (1885) Hermann Klaus Hugo WEYL (1906) Jaroslav Borisovich LOPATYNSKY (1922) Imre LAKATOS	
	10	V	(1829) Helwin Bruno CHRISTOFFEL	
	11	S	(1904) John Henry Constantine WHITEHEAD	
	12	D	(1825) Michail Egorovich VASHCHENKO-ZAKHARCHENKO (1842) John William STRUTT Lord RAYLEIGH (1927) Yutaka TANIYAMA	
	46	13	L	(1876) Ernest Julius WILKZYNSKY (1878) Max Wilhelm DEHN
		14	M	(1845) Ulisse DINI
		15	M	(1688) Louis Bertrand CASTEL (1793) Michel CHASLES (1794) Franz Adolph TAURINUS
		16	G	(1835) Eugenio BELTRAMI
		17	V	(1597) Henry GELLIBRAND (1717) Jean Le Rond D'ALEMBERT (1790) August Ferdinand MOBIUS
18		S	(1872) Giovanni Enrico Eugenio VACCA (1927) Jon Leslie BRITTON	
19		D	(1894) Heinz HOPF (1900) Michail Alekseevich LAVRENTEV (1901) Nina Karlovna BARI	
47		20	L	(1889) Edwin Powell HUBBLE (1924) Benoit MANDELBROT
		21	M	(1867) Dimitri SINTSOV
	22	M	(1803) Giusto BELLAVITIS (1840) Emile Michel Hyacinte LEMOINE	
	23	G	(1616) John WALLIS (1820) Issac TODHUNTER	
	24	V	(1549) Duncan MacLaren Young SOMERVILLE (1909) Gerhard GENTZEN	
	25	S	(1873) Claude Louis MATHIEU (1841) Friedrich Wilhelm Karl Ernst SCHRODER	
	26	D	(1894) Norbert WIENER (1946) Enrico BOMBIERI	
	48	27	L	(1867) Arthur Lee DIXON
28		M	(1898) John WISHART	
29		M	(1803) Christian Andreas DOPPLER (1849) Horace LAMB (1879) Nikolay Mitrofanovich KRYLOV	
30		G	(1549) Sir Henry SAVILE	

### IMO 1960 - 5

Il cubo  $ABCD A'B'C'D'$  ha  $A$  sopra  $A'$ ,  $B$  sopra  $B'$  e avanti in questo modo.  $X$  è un qualsiasi punto sulla diagonale di faccia  $AC$  e  $Y$  è un qualsiasi punto di  $B'D'$ .

(a) Trovare il luogo del punto medio di  $XY$ ;

(b) trovare il luogo del punto  $Z$  che giace ad un terzo del segmento  $XY$ , in modo tale che  $ZY = 2XZ$ .

**D:** Qual'è la differenza tra un matematico e un fisico?

**R:** Un matematico pensa che due punti bastino per tracciare una linea retta. Un fisico ha bisogno di altri dati.

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**Novembre - OFFERTA SPECIALE**

**CORPI RIGIDI:** Quante volte una vostra dimostrazione è fallita a causa della non rigidità di una parte essenziale del vostro apparato? Da oggi, questo problema è risolto! I nostri corpi rigidi sono garantiti ASSOLUTAMENTE INFLESSIBILI! Possiamo tagliare e lavorare questo materiale secondo qualsiasi specifica richiesta. Fornire le dimensioni precise per una stima del costo

**SOLO CALL!**

"A scientist can hardly meet with anything more undesirable than to have the foundations give way just as the work is finished. I was put in this position by a letter from Mr. Bertrand Russell when the work was nearly through the press."

Friedrich Ludwig Gottlob FREGE

"Logic is the hygiene the mathematician practices to keep his ideas healthy and strong."

Hermann Klaus Hugo WEYL

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

John Henry Constantine WHITEHEAD

"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

48	1	V	(1792) Nikolay Yvanovich LOBACHEVSKY	
	2	S	(1831) Paul David Gustav DU BOIS-RAYMOND (1901) George Frederick James TEMPLE	
	3	D	(1903) Sidney GOLDSTEIN (1924) John BACKUS	
49	4	L	(1795) Thomas CARLYLE	
	5	M	(1868) Arnold Johannes Wilhelm SOMMERFELD (1901) Werner Karl HEISENBERG	
	6	M	(1682) Giulio Carlo FAGNANO dei Toschi	
	7	G	(1647) Giovanni CEVA (1823) Leopold KRONECKER (1830) Antonio Luigi Gaudenzio-Giuseppe CREMONA	
	8	V	(1508) Regnier GEMMA FRISIUS (1865) Jaques Salomon HADAMARD (1919) Julia Bowman ROBINSON	
	9	S	(1883) Nikolai Nikolaievich LUZIN (1906) Grace Brewster MURRAY HOPPER (1917) Sergei Vasilovich FOMIN	
	10	D	(1804) Karl Gustav Jacob JACOBI (1815) Augusta Ada KING Countess of LOVELACE	
	50	11	L	(1882) Max BORN
		12	M	(1832) Peter Ludwig Mejdell SYLOW
		13	M	(1724) Franz Ulrich Theodosius AEPINUS (1887) George POLYA
14		G	(1546) Tycho BRAHE	
15		V	(1802) Janos BOLYAI	
16		S	(1804) Wiktor Yakovievich BUNYAKOWSKY	
17		D	(1706) Gabrielle Emile Le Tonnelier de Breteuil du CHATELET (1835) Felice CASORATI (1842) Marius Sophus LIE (1900) Dame Mary Lucy CARTWRIGHT	
51	18	L	(1917) Roger LYNDON	
	19	M	(1783) Charles Julien BRIANCHON (1854) Marcel Louis BRILLOUIN	
	20	M	(1494) Oronce FINE (1648) Tommaso CEVA (1875) Francesco Paolo CANTELLI	
	21	G	(1878) Jan LUKASIEVIKZ (1932) John Robert RINGROSE	
	22	V	(1824) Francesco BRIOSCHI (1859) Otto Ludwig HOLDER (1877) Tommaso BOGGIO (1887) Srinivasa Aiyangar RAMANUJAN	
	23	S	(1872) Georgii Yurii PFEIFFER	
	24	D	(1822) Charles HERMITE (1868) Emmanuel LASKER	
	52	25	L	(1642) Isaac NEWTON (1900) Antoni ZYGMUND
26		M	(1780) Mary Fairfax Greig SOMERVILLE (1791) Charles BABBAGE	
27		M	(1571) Johannes KEPLER (1654) Jacob (Jacques) BERNOULLI	
28		G	(1808) Athanase Louis Victoire DUPRE (1882) Arthur Stanley EDDINGTON (1903) John von NEUMANN	
29		V	(1856) Thomas Jan STIELTJES	
30		S	(1897) Stanislaw SAKS	
31		D	(1872) Volodymyr LEVIYTSKY (1896) Carl Ludwig SIEGEL (1952) Vaughan Frederick Randall JONES	

### IMO 1960 - 6

Un cono di rivoluzione ha una sfera inscritta tangente alla base del cono e alla superficie laterale del cono. Un cilindro e' circoscritto attorno alla sfera in modo tale che la sua base giace sulla base del cono. Il volume del cono vale  $V_1$  e il volume del cilindro vale  $V_2$ .

(a) Provare che  $V_1 \neq V_2$ ;

(b) Trovare il valore minimo di  $\frac{V_1}{V_2}$ . Per questo caso, costruire il semiangolo del cono.

La velocità del tempo è un secondo al saecundo.

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**CARRUCOLE SENZA INERZIA:** Tutti dicevano che era impossibile! Siamo fieri di questa nuova aggiunta al nostro catalogo, che sicuramente rivoluzionerà l'arte delle dimostrazioni in fisica. Prezzo proporzionale al quadrato del raggio. Per un migliore risultato, usare con i nostri perni senza attrito

**SOLO \$ 7.69 cad. (raggio 1 cm.)**

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

Jaques Salomon HADAMARD

*"Now it is quite clear to me that there are no solid spheres in the heavens, and those that have been devised by authors to save the appearances, exist only in their imagination, for the purpose of permitting the mind to conceive the motion which the heavenly bodies trace in their courses."*

Tycho BRACHE

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

Janos BOLYAI

*"I believe there are 15 747 724 136 275 002 577 605 653 961 181 555 468 044 717 914 527 116 709 366 231 425 076 185 631 031 296 296 protons in the universe and the same number of electrons."*

Arthur EDDINGTON

*"The Analytical Engine weaves algebraic patterns, just as the Jacquard loom weaves flowers and leaves"*

Augusta Ada KING Countess of LOVELACE  
*Mathematics consists of proving the most obvious thing in the least obvious way*

George POLYA