<https://eu.bbcollab.com/collab/ui/session/join/086e4329691148c4859621abbfd1884a>

He had a great sequence of card tricks, based on a rigged deck which he would genuinely shuffle before performing miracle after miracle to the amazement of onlookers. He taught me the set up and for years I'd carry a rigged deck with me to meetings, and when we'd spot each other he'd casually say "Does anybody have a deck of cards? I'd like to show you something interesting" before dazzling everyone with the deck I "just happened to have on me". The sequence was based on a mnemonic of his that went "The Five Tenacious Boys, Nicely Joke To Hated Servant Girls Sick For Absent Kings."

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JHC was one of the most unique mathematicians and human beings who ever lived.

Like eccentric itinerant Hungarian mathematician Paul Erdos, who was 20 years his senior, he inspired adoration in undergraduates and post-graduates alike, and his infectious enthusiasm turned on so many generations of young people to the joy of research mathematics.

He had a genius for simplicity and memorable and self-explanatory notation, and also for giving things their right names: think kites and darts (for Penrose tiles) and hop, step, jump, sidle and so on (for Frieze patterns), or orbifolds (for symmetries).

He wrote original and engaging books, he was kind and helpful to anyone who sought his council. Like another sublime communicator, Martin Gardner, with whom John corresponded going back to his undergraduate days in the 1950s in Cambridge, he always shared his toys. Not only did he have a lot of original and fascinating toys, most of them were of his own invention.

After he moved to the USA in the 1980s, he had a great parlour trick involving 100 pennies, which he would perform only once for any given person, and in private, also swearing you to secrecy. I could never figure out how it was done. Somebody told me later what the secret was, and like with the best illusions I wish I've never found out, it broke the magic spell.

At a 1998 talk at the AAAS meeting in Philadelphia, he said something that has always stuck with me: "Geometry is the user interface of mathematics". As somebody whose own education at university was devoid of pictures, and was just starting to rediscover geometry myself, it was very influential for my own teaching and writing.

He had a great sequence of card tricks, based on a rigged deck which he would genuinely shuffle before performing miracle after miracle to the amazement of onlookers. He taught me the set up and for years I'd carry a rigged deck with me to meetings, and when we'd spot each other he'd casually say "Does anybody have a deck of cards? I'd like to show you something interesting" before dazzling everyone with the deck I "just happened to have on me". The sequence was based on a mnemonic of his that went "The Five Tenacious Boys, Nicely Joke To Hated Servant Girls Sick For Absent Kings."

As the years went by, he became a little more self-indulgent and overplayed the absent-minded professor card. On several occasions he forget to show up for his own talks, even major invited ones at national meetings, causing embarrassment for organisers and disappointment for attendees.

Meeting him was always an unpredictable delight, you never knew what you were about to learn. It might be the fact that Fermat pronounced the final "t" in his name, based on where and when he lived.

He was a lovable character with a little rogue element, and he could talk the hind legs off a donkey. Those lucky enough to have spent time in his company are going to miss him greatly.

His first wife went to university at Trinity College Dublin, and he visited

there numerous time in the early 1960s. As we say there,

Ní bheidh a leithéid arís ann (IRISH SAYING)

(roughly: "his like will not be seen again")

As his former PhD student Derek Smith has observed, may be Rest in Play.

“What separated him from other mathematicians whose work was also deep and broad

and which extended over many decades was his free-spirited fun-loving and playful

approach to everything,” Colm Mulcahy, professor of mathematics at Spelman College, said in an e-mail. “He did very serious mathematics, but with a flair and passion that was quite unique.”

In the late 1960s he represented Britain at the International Mathematical Olympiads three times, scoring the top grade each time, once with 100%, another time with 99%, and winning a special prize for the elegance of his solutions. What made his work beautiful was not its complexity but its simplicity. Without drafts or false starts, he laid down his pellucid solutions to questions involving imaginary numbers, infinity and the distribution of primes with the grace of a ballerina unfolding her hands.

Simon took his first mathematics degree at Imperial College, London, while still a schoolboy. But then came Cambridge University. Rather than allowing Simon to continue his ebullient race into mathematics and start on a PhD straight away, the Cambridge mathematics department insisted he retake the final year of his degree. For the first time, Simon faltered. Mathematics legend has it that he scored a historic 52 alphas in his finals (12 is all it takes to get a first); in fact, it was 13. Simon was not even the best in his class. Bored at having to repeat material he already knew, the next year he almost failed Part III Mathematics, necessary for anyone wanting to start research.

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Simon’s fortunes revived when he started to work with the charismatic John Conway, a brilliant and playful mathematician at the university. Together they worked on the Atlas of Finite Groups. Group theory concerns the study of symmetries.

1060 cromwell <https://www.thestar.com/news/insight/2015/08/23/inside-the-mind-of-mathemagician-john-horton-conway.html>

November 1968, Conway returned to the department and got the standard question: “Had the baby?”

*Yes.*

“Boy or girl?”

*Yes.*

His middle initial or name is used several times here as there is another distinguished mathematician John B Conway.

John Horton Conway, who has died at age 82 in New Brunswick, New Jersey, from COVID-19 complications, was one of the most prolific and charismatic British mathematicians of the 20th century.

John was an iconoclastic academic who held court for over half a century at coffee lounges in mathematics departments worldwide, especially at Trinity College, Cambridge, and, following his 1987 move to the USA, at Princeton University. Trying to name Conway’s most important contributions to mathematics is as pointless as identifying the best three or four songs by fellow Liverpudlians the Beatles: there’s just too much great material to pick from, and no two people will agree on their selections.

John Conway was very active and productive in many branches of mathematics, including group theory, coding theory, knot theory, geometry, number theory, and quadratic forms, as well as in recreational mathematics. His 1970 invention of The Game of Life is seen as a watershed moment in the development of cellular automata, and is still the subject to much study today. John came up with a wealth of whimsical games such as phutball, hackenbush, and sprouts, as well as innovative ways to analise other games. Together with Elwyn Berlekamp and Richard Guy, who predeceased him by a year and a month respectively, he is credited with co-founding the field of combinatorial game theory.

His proudest contribution was another 1970 creation, the Surreal Numbers, a unifying number system that encompassed ordinary numbers as well as those that are infinitely small or large. He was particularly pleased with the Free Will theorem in quantum mechanics from early in the current century, which he formulated with Simon Kochen. In his own words, it says that "if experimenters have free will, then so do elementary particles.”

Occasionally a mathematician will make deep and broad contributions for many decades, but what distinguished John’s work was that he did this with a fun-loving and playful approach to everything. The serious mathematics he did was done with an unorthodox flair, irreverence, and passion that was quite unique.

Like the American writer Martin Gardner (1914-2010, with whom John corresponded extensively going back to his undergraduate days in the 1950s, he always shared his toys, both figuratively and metaphorically. Not only did he have a lot of fascinating toys, most of them were of his own divising.

John Horton Conway was born in Liverpool, to Agnes Boyce and Cyril Horton Conway. His father was chemistry lab technician at the Liverpool Institute High School for Boys, which Paul McCartney and George Harrison attended. John went to Gonville and Caius College, Cambridge, getting his BA (1959) and PhD (1964, under Harold Davenport).

While he was reportedly quite shy as a young man, over time he perfected a disarming, casual charm, and an eccentric Pied Piper persona. He soon earned a reputation for delivering one brilliant lecture after another, and his classes at both Cambridge and Princeton were popular and oversubscribed. Like itinerant Hungarian mathematician PaulErdős (1913-1996)*,* https://www.theguardian.com/commentisfree/2008/may/19/geekplusnerdequals he inspired adoration in undergraduates and post-graduates alike, and his infectious enthusiasm turned on generations of young people to the joy of research mathematics.

John H Conway was elected a Fellow of the Royal Society (1981), was the first recipient of the Pólya Prize (1987) from the London Mathematical Society, was awarded the Nemmers Prize in Mathematics (1998), and received the Leroy P. Steele Prize for Mathematical Exposition (2000). His 21 doctoral students include Fields Medalist Richard Borcherds. https://www.theguardian.com/lifeandstyle/2000/dec/12/healthandwellbeing.health1

In the 1990s his email account was set up so that before he could log on, he had to correctly identify the day of the week for 10 randomly chosen dates in history, using his own so-called Doomsday Algorithm, and all within 10 seconds. His methods were much streamlined from Lewis Carroll’s 1887. ttps://www.nature.com/articles/035517a0

While many of John’s creations were the products of his fertile mind, he also thrived on collaboration. He wrote numerous books with co-authors including Simon Norton <https://www.theguardian.com/education/2019/feb/22/simon-norton-obituary> , Elwyn Berlekamp and Richard Guy (all three of whom have died since 2018), as well as Neil Sloane, Francis Fung, Derek Smith, Chaim Goodman-Strauss and Heili Burgiel.

John had a genius for communication, and was a master of simplicity and stripping things down to their basics. He knew the power of memorable and self-explanatory notation, as well as the value of giving things their right names. It was he who came up with the catchy “kites and darts” ?? for Penrose tiles in the 1970s, and the right-on-the-nail “hop, step, jump, sidle” and related terms for the seven different ways one was walk in one-dimension (*aka* Frieze patterns). He was a regular contributor to Martin Gardner’s Scientific American column going back to his days as an undergraduate. In 1958, he (and ) used algebra to figure out that there were 240 ways to solve the 3 dimensional Soma cube 7-piece puzzle of Piet Hien.

Like his PhD student, friend and collaborator Simon Norton, one of the co-authors of his landmark *Atlas of Finite Groups* (1985), John was occasionally mistaken for a homeless man. This was due to his disdain for the niceties of neatness and formal attire.

He is survived by his wife Diana (nee Cutsogeorge), their son Gareth; four daughters (Annie, Ellie and Susie Conway and Rosie Wayman) from his first marriage to Eileen Howe; and two sons (Oliver and Alex) from his second marriage to Larissa Queen; as well as three grandchildren and six great-grandchildren.

• John Horton Conway, mathematician, born 26 December 1937; died 11 April 2010.

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Childs

1—you didn’t report mean correctly to 2 decimal places at the end. There are other issues 11

2— 9

3—18

4—late as specified means D < X < D +3 …. 12

5—19

6- 6

7-- 4

8-- 5

84

norwood

1—you never reported the mean at the end correct to 2 decimal places. 15

2-- 9

3— you used wrong sd at the end 16

4— 2nd part: “late” as described means d < x < d + 3 12

5-- 19

6-- 6

7-- 4

8-- 5

86

Jada harris

1—you didn’t report mean correctly to 2 decimal places at the end. 15

2— 9

3—why is chem z-score better?! Last part? 17

4—late as specified means D < X < D +3 …. 12

5—19

6- 6

7-- 4

8-- 5

87

geddie

1-- 16

2-- 9

3—chem std dev isn’t 6…. 16

4—looks like answers to questions I didn’t ask. And how is 17 in denominator? 7

5—1st part wrong; 16

6— 8

7— 8

8—8

88

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It said to show work for full credit. You ignored this a lot\

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you didn’t report mean correctly to 2 decimal places at the end.

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