Twitter Thread by <u>Maths In India</u>

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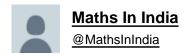@MathsInIndia

In Douglas Adams's popular 1979 science-fiction novel 'The Hitchhiker's Guide to the Galaxy', the supercomputer Deep Thought takes 7.5 million years to calculate that the answer to the "Great Question" of "Life, the Universe and Everything" is "42."

A thread.

The author's choice of the number 42 has become a fixture of geek culture, giving rise to a multitude of jokes, quips and satirical anecdotes. For example, you ask your search engine variations of the question "What is the answer to everything?" it will most likely answer "42."

Now the question arises, why 42? If we delve a little deeper, we find that the number 42 turns up in a whole string of curious coincidences, whose significance is neither known, nor it is worth the effort to figure out, however intriguing the coincidences may seem. Let us see.

In ancient Egyptian mythology, during the judgment of souls, the dead had to declare before 42 judges that they had not committed any of the 42 sins as listed in the 'Negative Confession'.

For an interesting read, visit this link.
https://t.co/snGUgP8XiD

The marathon distance of 42.195 kilometres corresponds to the legend of how far the ancient Greek messenger Pheidippides ran between Marathon & Athens to announce victory over the Persians in 490 B.C. It is another matter that the kilometre had not yet been defined at that time!

Ancient Tibet had 42 rulers. Nyatri Tsenpo, who reigned around 127 B.C., was the first. And Langdarma, who ruled from 836 to 842 A.D. was the last.

842 was the 42nd year of the 9th century.

The Gutenberg Bible, that contains the Latin version of the Hebrew Old Testament and the Greek New Testament, also the first book printed in Europe, has 42 lines of text per column and is also called the "Forty-Two-Line Bible."

In the binary system, or base 2, 42 is written as 101010, which is pretty simple and, incidentally, prompted a few fans to hold parties on October 10, 2010 (10/10/10).

The number 42 has many interesting mathematical properties too.

The number is the sum of the first three odd powers of two, that is, 2(raise to 1) + 2 (raise to 3) + 2 (raise to 5) = 42. It is an element in the sequence a(n), which is the sum of n odd powers of 2 for n > 0.

The number 42 is the sum of the first two nonzero integer powers of 6, that is, 6 (raise to 1) + 6 (raise to 2) = 42. The sequence b(n), which is the sum of the powers of six, corresponds to entry A105281 in The Online Encyclopedia of Integer Sequences or OEIS.

42 is a Catalan number. These are extremely rare, only 14 are lower than one billion. Catalan numbers were first mentioned by Leonhard Euler, who wanted to know how many different ways an n-sided convex polygon could be cut into triangles by connecting vertices with line segments

Forty-two is also a "practical" number, which means that any integer between 1 and 42 is the sum of a subset of its distinct divisors. The first practical numbers are 1, 2, 4, 6, 8, 12, 16, 18, 20, 24, 28, 30, 32, 36, 40, 42, 48, 54, 56, 60, 64, 66 and 72.

Keep searching. Maybe you will find more interesting facts about the number '42'.

End of thread.