Flower Numbers: A Chinese Counting Legacy

湘數

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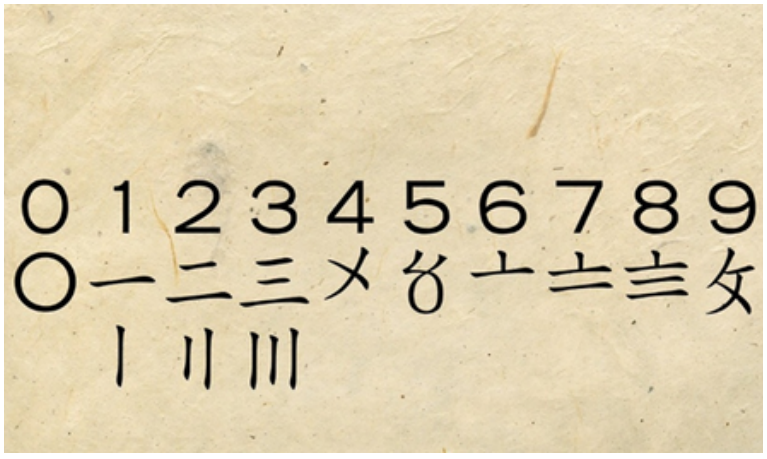


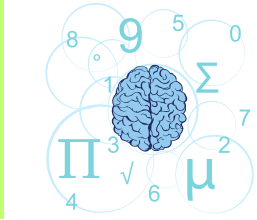
The system of Suzhou numerals (also known as Sūzhōu mǎzi 蘇州碼子 / 花碼) is a historical Chinese system of numerals that were widely used in commerce and accounting before the introduction of Arabic numerals. They are derived from the rod numerals and are still used in certain areas like Hong Kong and Chinatowns for specialized purposes like cheque writing and certain kinds of financial transactions.

·Origin:

Suzhou numerals evolved from the rod numerals, a method representing numbers by using horizontal and vertical rods on a counting board.

Positive numbers (traditional)

	0	1	2	3	4	5	6	7	8	9
Vertical	〇	𝍠	𝍡	𝍢	𝍣	𝍤	𝍥	𝍦	𝍧	𝍨
Horizontal	〇	𝍩	𝍪	𝍫	𝍬	𝍭	𝍮	𝍯	𝍰	𝍱

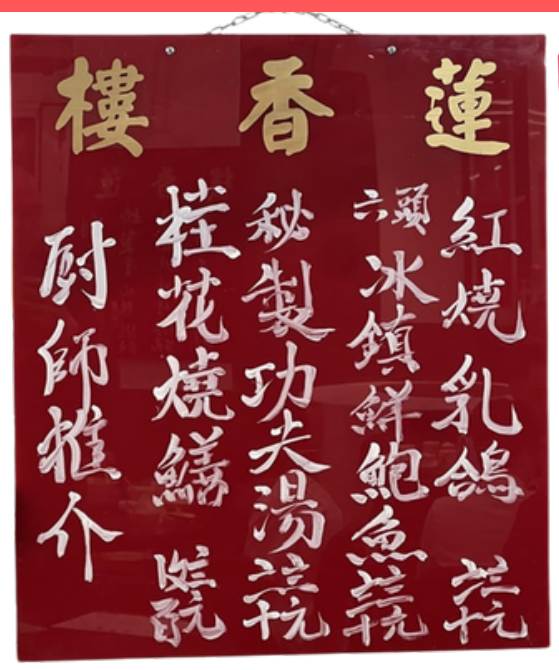


Examples:

	Traditional	Southern Song
231	𝍡𝍢𝍠	𝍡𝍢𝍠
5089	𝍭〇𝍯𝍨	𝍤〇𝍯𝍧
−407	𝍩〇𝍦	×〇𝍦
−6720	𝍮𝍥=𝍘	𝍮𝍥=𝍘

·Past Usage:

They were used in markets, shops, and financial institutions for recording amounts and prices.



A menu at Lin Heung Lau restaurant

·Modern Usage:

While not as widely used as modern Arabic numerals, Suzhou numerals are still found on chequebooks in some East Asian regions and in traditional contexts like herbal medicine prescriptions.

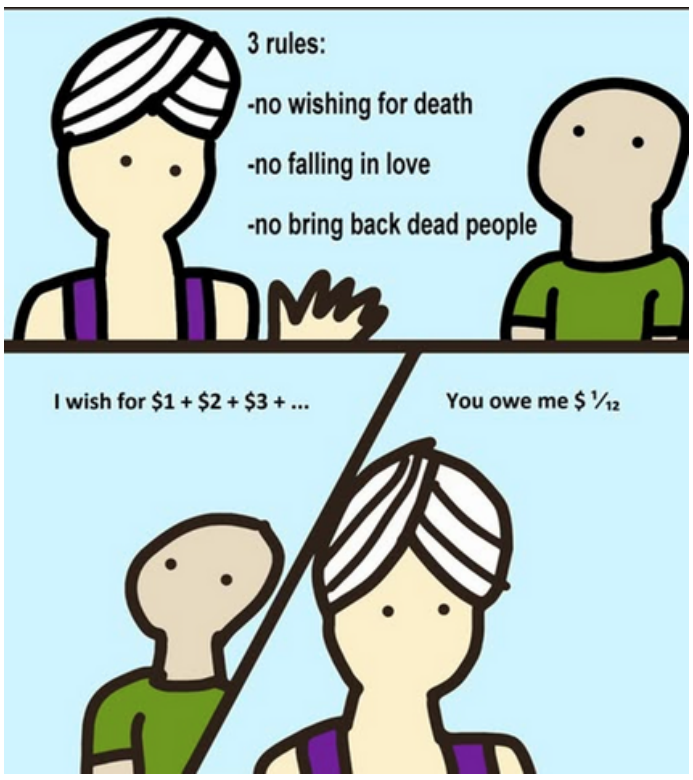
In Hong Kong, they are sometimes used on price tags in grocery stores and restaurants.

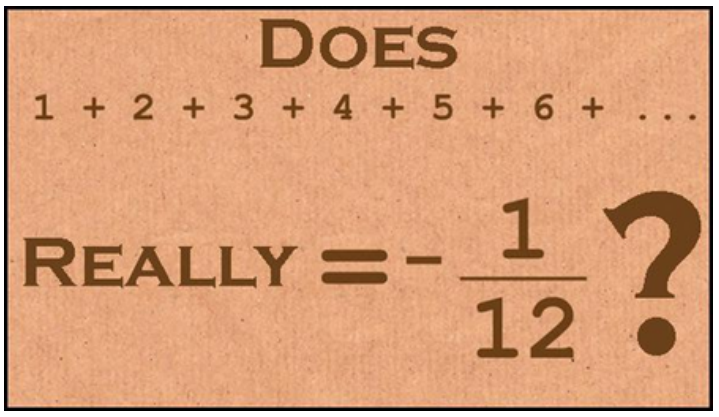
Kowloon Soy Co. Ltd. (九龍醬園) – A made-in-hongkong soy sauce

Banquet invoices issued by restaurants circa 1910–1920s.

Red vans fees ($4.5, $5.5, $6.5, $7.5, $8.5, $9.5)

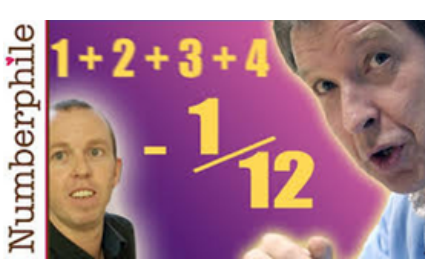
Maths Meme





The answer is YES. SOMETIMES, KINDA.

Photo by Numberphile, from the video, modified by Phil Plait



How could an infinite sum be negative?
You can see the proof above.

In case you've never heard of this idea before, it's called the Ramanujan Summation, named after a famous Indian mathematician, Srinivasa Ramanujan.

$$\zeta(-1) = 1+2+3+4+\ldots\ldots = \frac{-1}{12}$$

It says that if you add up all the natural numbers—1, 2, 3, 4, and so on—going on forever, the result isn't a huge number, but surprisingly, it's -1/12. Yes, that's negative 0.08333333333!

While the sum 1 + 2 + 3 + 4 + ⋯ = -1/12 seems absurd in normal math, it actually plays a huge role in advanced physics and engineering.

Claim: 1 + 2 + 4 + 8 + 16 + ⋯ = -1

Proof: Let A = 1 + 2 + 4 + 8 + 16 + ⋯

A = 1 + (2 + 4 + 8 + 16 + ⋯)

A = 1 + 2(1 + 2 + 4 + 8 + ⋯)

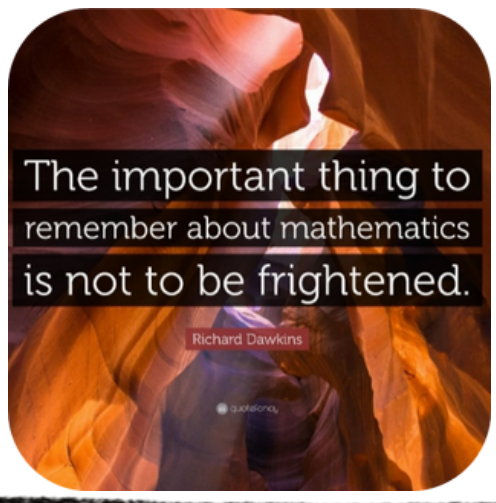
A = 1 + 2A

A - 2A = 1

-A = 1

A = -1

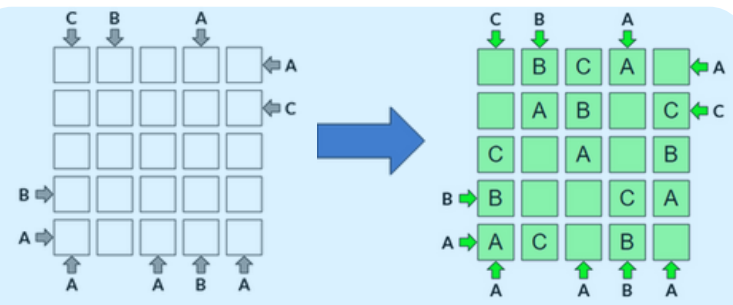
Do you agree?



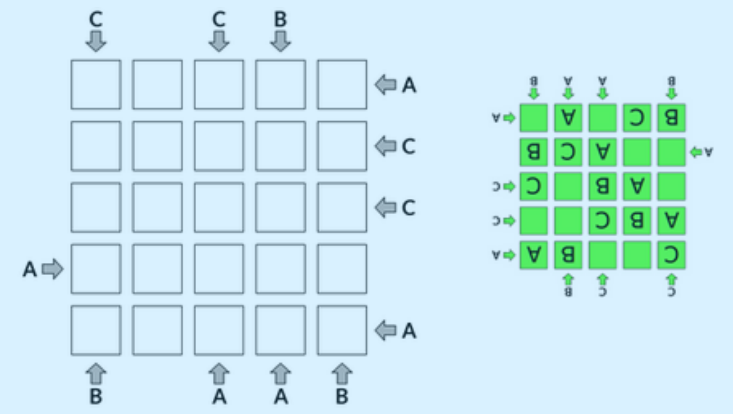
ABC View

Objectives / Rules

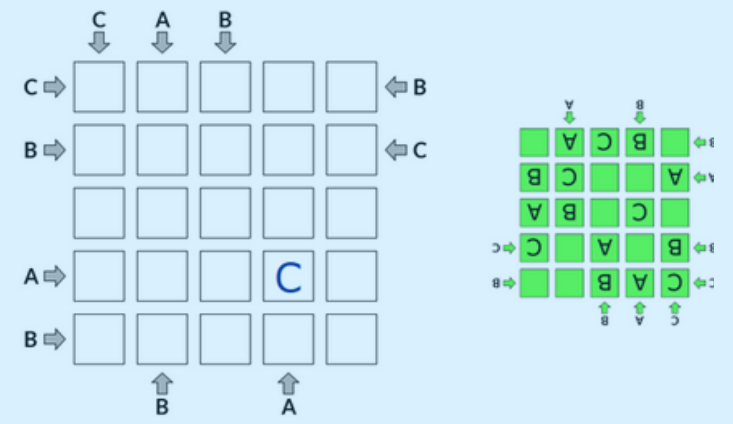
- Fill every row and column with exactly one A, B, and C (and two blank squares).
- The clues tell you which letter appears first in that direction in each row or column.



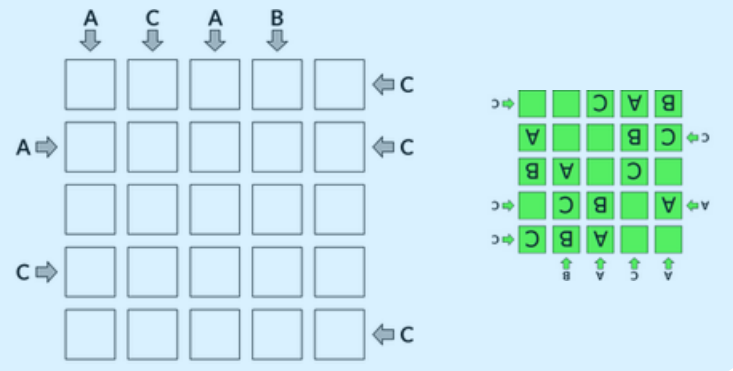
Game 1



Game 2



Game 3



Maths Beauty: The Missing 98

If you divide 1 by 9801, you'll get every number from 00 to 99 in the correct order but 98 in the decimal places. But WHY??

1 ÷ 9801 =

0. 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 99 00 01 02 …

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