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SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE

USDA

Stand-In for Man

See Page 24

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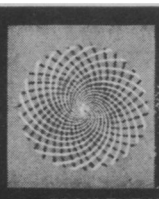
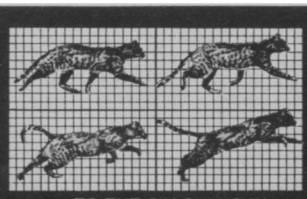


FROM THE MYSTERIOUS GEOMETRY OF NATURE...

The daisy head bears curious relationship with the mathematical Fibonacci series, produced by starting with 1 and adding the last two numbers to arrive at the next: 1, 1, 2, 3, 5, 8, 13, 21, 34, etc. Daisy head has 21 clockwise spirals, 34 counter-clockwise!

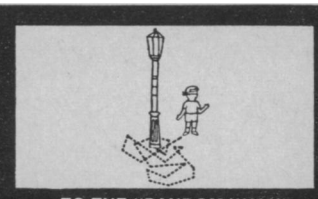


...TO THE CALCULUS IN A STARTLED CAT...

Just as a movie film consists of repeated still pictures of a moving object, so does Calculus break motion down into an infinite number of "instants." Thus mathematicians can calculate an object's speed and acceleration at a specific instant.

...TO THE AMAZING COINCIDENCE OF BIRTHDAYS...

Out of any 30 people in a crowd, the odds are better than two to one that at least two of them have birthdays on the same date. In dealing with a group above 50 people, the chance approaches certainty. Try it on 50 friends and see for yourself!

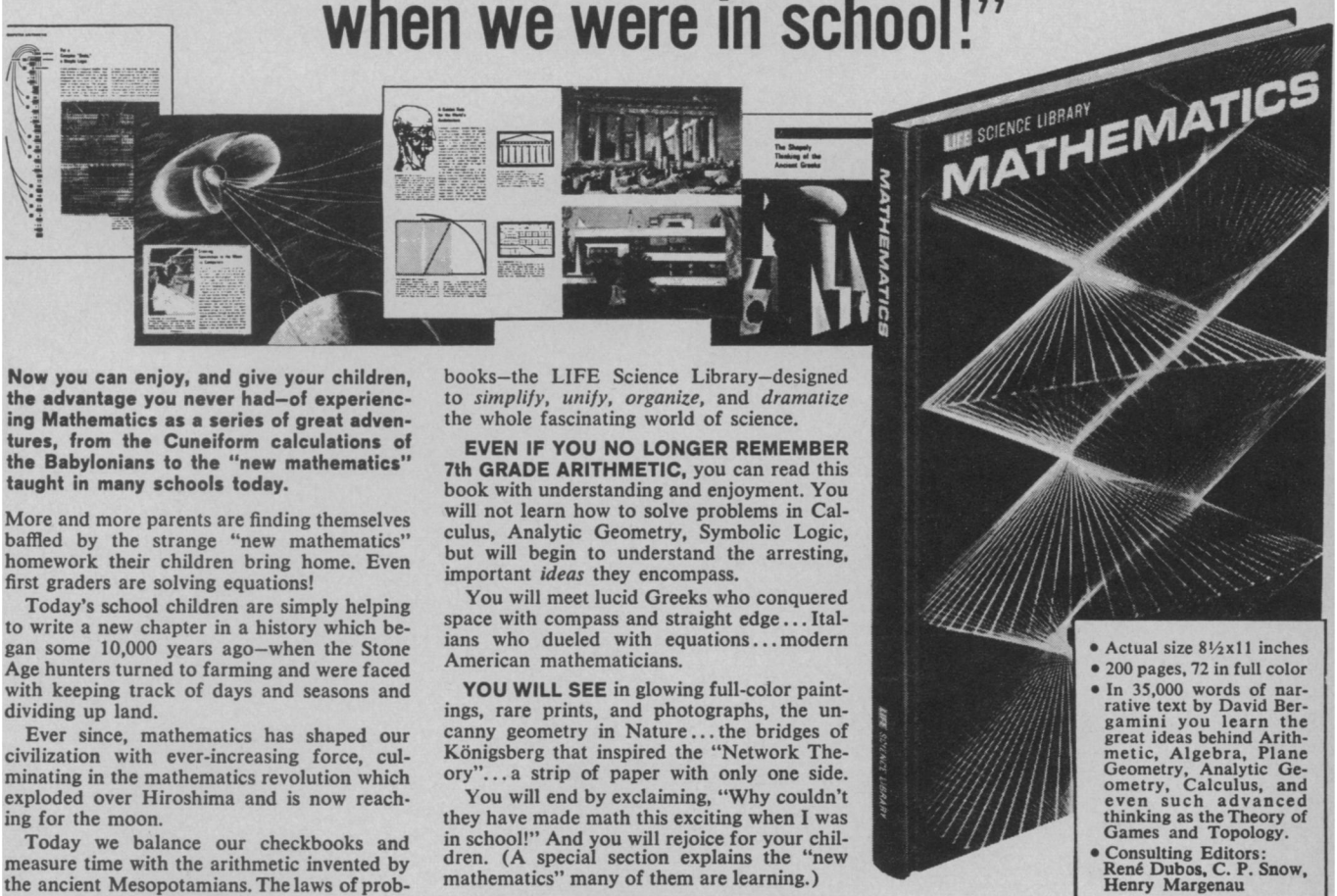


...TO THE "RANDOM WALK" PRINCIPLE, MODERN PHYSICS

If a blindfolded boy walks away from a lamppost, changing direction according to whim, the "law of disorder" predicts that he will keep returning to the lamppost. Young Einstein used this principle to describe the movement of tiny particles suspended in a liquid.

This LIFE Science Library book makes everything from Euclid to Einstein so fascinating you'll exclaim

"If only Mathematics had been made this exciting when we were in school!"



Now you can enjoy, and give your children, the advantage you never had—of experiencing Mathematics as a series of great adventures, from the Cuneiform calculations of the Babylonians to the "new mathematics" taught in many schools today.

More and more parents are finding themselves baffled by the strange "new mathematics" homework their children bring home. Even first graders are solving equations!

Today's school children are simply helping to write a new chapter in a history which began some 10,000 years ago—when the Stone Age hunters turned to farming and were faced with keeping track of days and seasons and dividing up land.

Ever since, mathematics has shaped our civilization with ever-increasing force, culminating in the mathematics revolution which exploded over Hiroshima and is now reaching for the moon.

Today we balance our checkbooks and measure time with the arithmetic invented by the ancient Mesopotamians. The laws of probability determine our insurance rates. The Theory of Games helps the businessman—and may even prevent World War III.

All the wonders of mathematics, both ancient and modern, are pictured and explained —with LIFE's unique combination of authority, clarity, and visual drama—in this dazzling new volume on MATHEMATICS. Because mathematics is the language of science, this volume will serve as an especially appropriate introduction to an important new series of books—the LIFE Science Library—designed to *simplify*, *unify*, *organize*, and *dramatize* the whole fascinating world of science.

EVEN IF YOU NO LONGER REMEMBER 7th GRADE ARITHMETIC, you can read this book with understanding and enjoyment. You will not learn how to solve problems in Calculus, Analytic Geometry, Symbolic Logic, but will begin to understand the arresting, important *ideas* they encompass.

You will meet lucid Greeks who conquered space with compass and straight edge... Italians who dueled with equations... modern American mathematicians.

YOU WILL SEE in glowing full-color paintings, rare prints, and photographs, the uncanny geometry in Nature... the bridges of Königsberg that inspired the "Network Theory"... a strip of paper with only one side.

You will end by exclaiming, "Why couldn't they have made math this exciting when I was in school!" And you will rejoice for your children. (A special section explains the "new mathematics" many of them are learning.)

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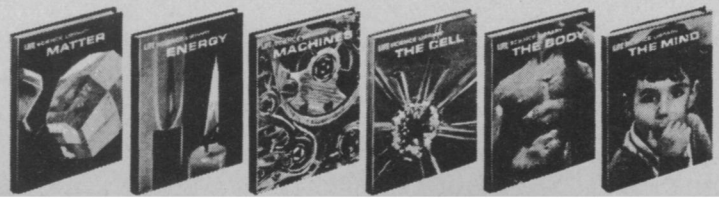

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