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Letters

Hacker's heaven

Mathematician Gregory Chudnovsky says he would be happy to find someone interested in programming Little Fermat for a specific application ("Little Fermat," SN: 10/6/90, p.222). Well, I'm sure he'll have plenty of takers for one of the applications he mentioned: factoring large numbers. That one could wipe out the security of many encrypted data files.

Data encryption has become important in modern society because of the large amount of sensitive data that are transmitted electronically. It protects fund transfers and state secrets. Modern encryption methods essentially create large numbers that must be factored to decode the data. They are considered unbreakable simply because it's so difficult to factor large numbers. If that difficulty is removed, so is the security. This is a hacker's dream come true.

Michael Adams
Software Engineer
Los Angeles, Calif.

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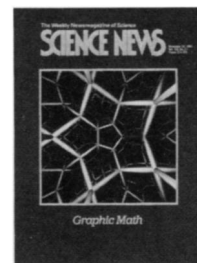
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Cover: Researchers can combine diverse elements from mathematics, physics and computer graphics to create a wide range of intriguing images. In this representation of hyperbolic space, intersecting beams meet at right angles even though the basic structural feature is a pentagon. Against such a background, mathematicians can study crucial features of knots and links. Here, the three sets of colored beams (green, blue and red) correspond to a set of three linked rings known as the Borromean rings. (Illustration: © Geometry Supercomputer Project; produced on a prototype laser printer at 3M in St. Paul, Minn.)



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On gas and politics

In "To Rot or Not" (SN: 10/6/90, p.218), Diane Loupe states, "The wet landfill's more rapid decay can pose some potential drawbacks, such as accelerated methane generation." She goes on to cite several incidents in which gas seepage from landfills led to deadly explosions or fires.

I believe her interpretation is askew. Ideally, rapid-decay landfill composting is largely aerobic and produces more carbon dioxide than methane. Furthermore, it is far less likely to result in gas seepages and explosions than are the old-style slow-decay methods in which wastes are buried when decay has hardly begun. Anything can be mismanaged, but if moisture, aeration and bacterial activity are optimized in landfill composting operations, the potential for further problems is reduced to nearly nothing (although this may mean more greenhouse gases in the short run).

I believe the cases cited in your article were actually borne of old-style slow-decay landfill management. While recycling has become a

contemporary cliché, it is nonetheless an imperative for waste disposal—and the more immediate and biological the recycling, the better.

Hugh Lovel
Director, Union Agricultural Institute
Blairsville, Ga.

The main reason we have any sort of crisis in landfill space today is because fewer landfills are being opened—not for lack of physical space, but for political or "not-in-my-backyard" reasons. Can anyone seriously think that this vastly empty country of ours is lacking in space for trash disposal?

Garbage disposal has never been a major engineering problem. Sure, there are plenty of technical controversies among experts about the best methods, but the real disposal problem of today is political, not physical.

John Gillis
New York, N.Y.

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