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Cover: A tick of the species Ixodes dammini, the primary perpetrator of Lyme disease, lies in wait for an unwitting host. While dining on an animal's blood, the tick may donate or receive Lymecausing bacteria. To fight the disease, scientists are struggling to tackle the booming and spreading tick population. (Photo: Bernard Furnival, Fran Heyl Associates)



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Letters

Shot down

I was interested to learn in "Drinking While Pregnant Risks Child's IQ" (SN: 2/4/89, p.68) that "the concentration of alcohol in one glass of wine, one bottle of beer and one shot of hard liquor is approximately the same."

Either the composition of alcoholic beverages is very different back there in the Eastern flatlands, or your writer meant to say that the *amount* of alcohol in each of these drinks is approximately the same.

However, if the concentration of alcohol in a Washingtonian bottle of beer can be shown to be approximately the same as that in a Washingtonian shot of hard liquor, your flatland beer halls may shortly begin receiving many more tourists. Unless, of course, you're peddling Dr. Koop's New Improved 6% "Safety-Hard" Liquor, in which case we hinterland taxpayers must reformulate our hy-

potheses concerning standard congressional behavior.

Whatever - good luck on the Beltway at rush hour!

J.C. McLoughlin Ranchos de Taos, N.M.

Thanks for your concern – sometimes I lose my concentration. — B. Bower

Regrettable reform?

I am a voice crying in the wilderness, but I deplore the National Academy of Sciences report ("Reforming math education," SN: 2/4/89, p.70) calling for a "a shift in mathematics education at all levels away from pencil-and-paper exercises and rote memorization toward using calculators and computers and solving more realistic problems." I am already getting students in college classes who have been told by their teachers, "don't bother memorizing the multiplication table

or the rules for adding fractions – just use a calculator."

Do these students use their calculators to solve "more realistic problems"? They do not. Many elementary math problems involve a dozen or more simple arithmetic operations. To do every one of these operations on a calculator takes so long and is so subject to error that the students quickly give up, and do no mathematics at all.

Perhaps the NAS did not mean "don't teach children mental arithmetic," but that is how "a shift away from . . . rote memorization" will be interpreted. And the results will be disastrous

Rick Norwood Professor, Department of Mathematics East Tennessee State University Johnson City, Tenn.

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