

the margin, and one forgets to tell one's son not to reprint one's marginal scribbles uncritically.

I am indebted to Rodolfo Ruiz-Huidobro (Rudy Ruiz) for sending me the offending *Parade* article; I had seen it discussed, with somewhat exaggerated passion, in the e-math Fermat discussion group a little earlier.

III.12 By the way. John Coates reports (conversation with me in Hong Kong, December, 1993) having actually seen, in the library of Emmanuel College, a copy of Bachet's *Diophantus* of 1621 and having been quite startled by the extraordinary width of its margins.

III.13 It took three authors, Everett Howe, Hendrik Lenstra, and David Moulton, to perpetrate the marginally relevant remark:

*"My butter, garçon, is writ large in!"
a diner was heard to be chargin'.
"I had to write there,"
exclaimed waiter Pierre,
"I couldn't find room in the margarine."*

III.14 An irritating aspect of the eccentric remarks of the *Parade* article is that they might well encourage the totally berserk. Should you ever need to dismiss the complete nonsense of such people, here is a wonderful retort quoted by Underwood Dudley in *Mathematical Cranks* (Washington, D.C.: Mathematical Association of America, 1992):

The twitterings of sparrows and the writings of great scientists have one thing in common. Both are incomprehensible to the average person. One should not conclude, however, that the sparrows are too profound for ordinary human beings to understand their thoughts. They just don't have any thoughts in the ordinary human sense of the term. I regret to inform you that these few sentences of yours are precisely that type.

III.15 Mersenne primes. Primes of the shape $2^m - 1$ must have m prime. These numbers were the object of avid study and speculation by Fermat's contemporary, Marin Mersenne. They reacquired notoriety because of a relatively efficient test for the primality of numbers of shape $2^m - 1$. In consequence, it is now not uncommon to test the integrity of supercomputers by allowing them to try to find what will be the largest known prime number, and to confirm earlier results. At the time of writing, the known Mersenne primes are $M_p = 2^p - 1$ with

$p = 2, 3, 5, 7, 13, 17, 19, 31, 61, 89, 107, 127,$
521, 607, 1279, 22032281, 3217, 4253, 4423, 9689, 9941, 11213, 19937,
21701, 23209, 44497, 86243, 110503, 132049, 216091, 756839.

Incidentally, the first line consists of those cases found by hand; the rest were found with computer aid. While human beings are credited with all