To the Editor of the *Mathematical Gazette*

DEAR SIR,

I am indebted to Mr. A. Kodym of Prague for pointing out tha the expression for π as a continued fraction with unit numerato has been carried to 200 places by P. Pedersen (Nordisk Mate matisk Tidskrift, Vol. 6, No. 2, 1958). In this paper it is shown tha π appears to satisfy two conditions which a random number satis fies. Both the geometrical mean of the first n denominators an the nth root of the denominator of the nth convergent appear t converge (somewhat erratically) to the limiting values of th corresponding quantities for a random number.

I should like to correct the assertion in my previous letter (Octobe 1959, p. 179) that the probability that, for a random number, an denominator is equal to r is $1/r(r+1)$. This is true only of th first denominator. Khintchine (Compositio Math. 3, pp. 276–28£ has shown that the limit, as n tends to infinity, of the proportion c denominators which are equal to r is $\log[1 + 1/r(r+2)]/\log 2$ If we assume that 200 is a sufficiently large value of n for this to b approximately true, we obtain the following results.

Denominator	Theoretical frequency	Actual frequency
1	83	80
2	34	38
3	19	19
4	12	10
5	8	5
6	6	6
7	5	7
over 7	33	35

Finally, Khintchine (Compositio Math. 1, pp. 361–382) ha shown that the arithmetic mean of the first n denominators of a random number tends asymptotically to $\log n/\log 2$. For $n = 200$ this value is 7·64. The corresponding value for π is 8·45. Thi agreement is quite good, since the arithmetic mean is dominated to a much greater extent than the geometric mean, by the larg denominators.

Yours etc., E. J F PRIMROSI

To the Editor of the *Mathematical Gazette*

DEAR SIR,

Your issue of October 1959 contains two letters on the numerica properties of π. The first letter, by Misses Curphey, Kelley, and Moffat, gives a frequency count of the first 10,000 digits of π which I presume to be those computed by Mr. Felton and published in July 1957 in the *Proceedings of the Oxford Mathematical Conference*