I first solved the problem by hand, using sliding pieces of paper to cover the 100 possible relations between the $d$'s and the $s$'s, and 3 sets of necessary but not sufficient conditions on the $s$'s to eliminate all but a few of the 1200 possibilities. The mechanics of this took about two hours. I later programmed the College Elliott 4120 computer to solve the problem by dealing in turn with all 1200 possibilities. This takes the machine a few minutes.

2. Of the questions posed in the general problem, only (a) is of any interest; (b) and (c) call for thousands of formulae which would be of no particular interest when found. Unfortunately the answer to (a) seems to require a great part of the answer to (b). Thus one might use an algebraic computer to write down the 1200 sets of 5 conditions on the $d$'s which ensure the existence of at least one solution. Comparing these sets of conditions in pairs (or preferably, to begin with, in pairs of groups) one might arrive at conditions for two or more solutions, and so on, until the upper bound $N$ to the number of solutions was found.

I have constructed an example of data with 5 solutions, namely 6, 7, 8, 9 10, 10, 11, 11, 12, 13 with the solutions 1, 4, 5, 6, 7;  2, 4, 5, 6, 6;  2, 4, 5, 6, 7;  2, 4, 5, 6, 8;  and 3, 4, 5, 6, 7.

*Lecturer in Mathematics,*                                    F. O'HARA
*Kingston College of Technology,*
*Kingston-upon-Thames.*

## CORRESPONDENCE

### FRANK NEWMAN

To the Editor, *The Mathematical Gazette*

SIR,

In the article on Frank Newman (*Math. Gazette*, December 1970) there is a footnote (p. 332) stating that I had not been able to find his name in any of the lists of members that I had consulted. Since then, however, I have discovered from the 16th Annual Report that he was elected an Honorary Member of the Association at the General Meeting on 17 January, 1890.

Yours faithfully,
9 *Vanbrugh Hill,*                                 T. A. A. BROADBENT
*Blackheath, London S.E.3.*

### THE OLD SAXON FOOT

To the Editor, *The Mathematical Gazette*

SIR,

If in 1305 Edward I had retained the old Saxon foot (equal to 13·2 modern inches), which was, and still is, the basis of English land measure, and made the yard equal to three such feet, there would have been