from the same population), in a form suitable for use by beginners, has been computed by Mr. P. J. Paull of St Mary's College, The Park, Cheltenham, Gloucestershire GL50 2RH. Anyone interested is invited to write to Mr. Paull for a copy, enclosing a stamped addressed envelope.

## CORRESPONDENCE

## To the Editor, of The Mathematical Gazette

SIR,

In the June 1971 Gazette Mrs Hayman writes a kind review of New Oxford Junior Mathematics Book 3 but makes one reservation. She says 'the authors seem to skip from topic to topic with no obvious order, and longer sections on one topic might have made learning easier'. Alas! the word topic looks simple but in that sentence it is highly ambiguous. Mathematical topic? or environmental topic? or something else? In fact a fundamental doctrine in the effective teaching of mathematics, certainly at the primary stage, is involved here: a new mathematical idea is recognized and accepted by a child through a variety of experiences in which the idea becomes evident. Variety is essential if the idea is to have sufficient clarity and generality. So in planning a book for primary children one begins with a fairly brief list of mathematical topics, suited to the particular age and arranged in an order which gives a smooth development of new insights. But each new idea must be presented several times through different realistic and practical experiences. Such a programme may seem to include a surprisingly wide range of topics in the sense of situations to be investigated. Yet this is the way in which children learn mathematics with an interest constantly renewed and a consciousness of everwidening understanding.

> Yours faithfully, E. M. WILLIAMS

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Redland College of Education, Bristol E. J. JAMES

## GLEANINGS FAR AND NEAR

It has recurred

Tom Jackson, Secretary of the Union of Post Office Workers, speaking during an earlier strike:

"The number of members backing the Union is 99.9 recurring per cent. Next time it will be 100 per cent."

(per Mr. T. Knape Smith.)