Correspondence

DEAR EDITOR,

It is well known that in the 'Tower of Hanoi' puzzle a minimum of $2^n - 1$ moves is required to transfer a stack of n rings from one peg to another. I wonder whether the following surprisingly simple algorithm for performing the moves is known.

The algorithm consists in the performance of an ordered triplet of moves over and over again until the stack is transferred. If the pegs are called A, B and C, and the stack starts at B, then one triplet is (AB, BC, CA) where AB means 'move a disc from A to B or vice versa' (only one alternative is possible on a particular occasion). This triplet transfers odd stacks to A and even stacks to C, in the minimum of moves. (CB, BA, AC) moves even stacks to A and odd stacks to B.

An inductive argument shows that the algorithm works for any sized stack.

Yours sincerely,
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DEAR EDITOR,

In note **66.35** (October 1982) Donald Bousfield describes a construction of an approximately regular n-gon. I first came across that construction in a school book in Beirut where it was *not* described as approximate!

In fact it is an interesting exercise (which I once proposed as a problem in M500, the Open University's student magazine) to show that the construction is exact just for $n = 2, 3, 4$ and 6. Indeed it can also be shown that the constructed angle is approximately 10% too big for large n.

Yours sincerely,
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Reviews

Pattern and place, by Keith Selkirk. Pp 203. £7·50. 1982. ISBN 0-521-28208-X (Cambridge University Press)

It is appropriate that I should follow my 1980 review of *Modelling with Trigonometry* with a review of *Pattern and place* for here is a book written in the spirit, and under the influence, of the Mathematics Applicable/SMP/Mathematics for the Majority movements. Mr Selkirk sets himself the task of 'creative trespassing' as a mathematician in the field of geography and sets himself two goals. First is that 'geographers will understand more clearly the ways in which mathematics can throw light on the patterns they observe in the real world' and second is that 'mathematicians can see how their own subject can be applied to geography without having to delve deeply into specialised geographical books.'

At this point I should perhaps reveal that, like the author, I also found that my school curriculum forced me to abandon the study of geography at an early age. I am therefore in a stronger position to judge the author on his second rather than first goal and in this respect I suggest that 'Pattern and Place' is a considerable success.

The division of the book into two parts—'Concepts' and 'Models'—is helpful. The 'Concepts' part comprises thirteen chapters which clear the mathematical ground to be built