In general, the colour coding makes the cards very teacher friendly and they should have a use in all classrooms to some lesser or greater extent. On the whole they do motivate pupils and I'm sure the cards would provoke much discussion among them.

GRAHAM H. STORR

_Hylton Red House School, Sunderland SR5 5LN_


This is a collection of nine basic puzzles targeted at the Key Stage 2 onwards audience. They are fairly well produced, as photocopiable masters, with limited notes and solutions provided. The puzzles themselves are mainly numerical, though spatial awareness is tested in a couple of them. There are no radically new puzzles in the collection – some magic-square type work, an alphametic, a decent leap-frog type puzzle and a few others. Trial and error seems to be over-rewarded at the expense of systematisation.

Sample solutions are given for eight of the puzzles (although, disappointingly there is a mistake in that for Puzzle 6), though little else is provided – departure points, differentiation hints, alternative solutions and possible extensions are all conspicuous by their absence. This is a real pity as the impression is given that there is no context to the puzzles.

My problem with the pack is – who would buy it? (Especially at the rather heavyweight price of nearly £1 per puzzle for non-members.) All mathematics teacher worth there salt will have their own collection of puzzles and pastimes which would be far more extensive than that on offer here. The internet is a huge source of puzzles (have you tried the Alphametics page?), and most schemes now come with extension work, puzzles, question banks etc. Indeed the very pages of the ATM and the MA magazines are loaded with ideas which can be adapted to amuse, interest, challenge and extend our pupils.

FRANK DAVIS

_International School Hannover Region, Hannover, D30169, Germany_


The dedication will clearly gain applause: ‘To all the underpaid teachers of mathematics, everywhere, who love their subject and are able to communicate that love to their students.’

The book is a gathering of forty-one of Gardner’s pieces written for the _Scientific American_ and not previously published in book form. These are on top of the countless articles he wrote for the ‘Mathematical Games’ column of the same journal over a twenty-five year period. There are many choice plums among this lot, some containing a pointer to deeper ideas, some unsolved, and some plain fun, but all entertaining even if you can’t do them. His weakness for magic squares is a feature of the book!

I had thought there were only a limited number of things one could say about \( \sqrt{2} \), but Gardner has proved me wrong. Of the umpteen proofs of its irrationality (possibly only exceeded by the number of ways of showing how the sum of the first \( n \) natural numbers is related to the sum of their cubes), this snappy variant on the usual one appealed: if \( \sqrt{2} = \frac{a}{b} \) then there is a smallest integer \( b \) which makes \( b\sqrt{2} \) an integer; but \( b' = b\sqrt{2} - b \) is a smaller such integer. End of story.