BOOK REVIEWS

"The Great Mathematicians" by H.W. Turnbull.
University Paperback. Published by Methuen and Co., $2.10

Because most of this book was written 45 years ago, there are huge areas of modern mathematics which are not touched upon. Indeed, the book deals mainly with mathematicians from the earliest days to about the earlier part of the 19th Century. However, most of the mathematics studied at High School and early University come from this period so you should certainly find it relevant and interesting. I did: I discovered that that very practical mathematician, Archimedes, weighed a segment of a parabola in order to verify his (correct) theorem that its area was 2/3 of the area of its circumscribing parallelogram. Remember, he didn't have coordinate geometry or calculus to help him.

"Calculus Explained" by W.J. Reichmann.
Science Paperback. Published by Associated Book Publishers Ltd, $4.00

This book sets out to explain the basic ideas of calculus to those people who need to use mathematics but who are not mathematical specialists. It is not a text-book but would be a very useful aid in studying a standard text book. It covers a surprisingly large amount of subject matter in a very clear way, including much that lies beyond a school calculus course. Recommended particularly to readers who want to know about calculus before they reach it in the school syllabus. Chapter 24, on Fallacies, should appeal to all readers.

"The Fascination of Numbers" by W.J. Reichmann.
University Paperback. Published by Methuen and Co., $1.80

A very readable book which should particularly delight younger Parabola readers who are just discovering the fascination of what is called elementary number theory. Other topics covered are irrational numbers, complex numbers and logarithms. The theory behind magic squares and continued fractions may well be new to you.

"The Spell of Mathematics" by W.J. Reichmann.

A Pelican book published by Penguin Books, $1.70

It was only when I got to this third book by the same author that I realised Mr Reichmann is a practising statistician in commerce and industry whose recreation might well be said to be mathematics. He certainly succeeds in this book in conveying his enthusiasm to his readers; it is almost guaranteed to get you hooked on mathematics. Remember: Mathematics is NOT a mental health hazard!

"Vectors, Transformations and Matrices" by Raymond Heritage and John Edge.

A Learning Mathematics Topic published by Penguin Books, $1.70

It is our usual policy not to review school text-books. Although this book may fit an English syllabus, the only NSW course it might be useful for, would be the HSC 1st Level course. Anyway it is almost entirely composed of questions and exercises (answers at the back) — a sort of programmed learning book. It starts from the geometry of translations and rotations, is interestingly laid out with plenty of diagrams and up to Penguin's expected standard.

One final remark: If you know of a book you think other readers would like, which I haven't reviewed already, please let me know: they are the sort of books I want to review.

M. Greening

GAME: 15's

Write down the digits from 1 to 9 inclusive, then select a digit each in turn, crossing out the selected digits. The first person to have selected three digits that sum to 15 is the winner.

Match Arithmetic

Can you show that three-tenths of five is four?

Answer on page 40.