Book Review

Publishers are invited to send in their recent mathematical publications for reviewing. Reviews of books of mathematical interest are solicited from readers. Books or reviews should be sent to Mr. Lim Chee Lin, Hwa Chong Junior College, 661 Bukit Timah Road, Singapore 10.

Additional Mathematics Pure and Applied in SI Units, by A. Godman and J. F. Talbert. Longman Malaysia, Kuala Lumpur, 1973, xvi + 504 pp., $ 7.20 .

This book is the only available text that covers all the topics in the Cambridge Additional Mathematics syllabus with the exception of the topic on statistics which is generally omitted by most teachers. It meets the requirements in both the pure and applied sections of the G. C. E. ordinary level examination in Additional Mathematics.

The approach to most of the topics is very straightforward. The numerical examples given are quite adequate and up-to-date, since the majority of the examples are taken from the past years' examination papers of Cambridge, Oxford and London Universities. The problems given at the end of each section are sufficient for the students to get themselves acquainted with the topic under study. There are quite a number of errors in the given answers to the problems set. For example, on page 93, Exercise 6.6, Problem 19, the reader is asked to obtain from the graphs drawn the solutions of the equation $2 \tan x = 3x$ for values of x between 0 and $\pi/3$ inclusive,

i.e. $0 \leqslant x \leqslant \pi/3$. The trivial solution $x = 0$ is missing from the answer. To quote another example: on page 237, Exercise 14.3, Problem 3(a), the reader is asked to find the value of $\sin 2\theta$ given that $\sin\theta = 12/13$. Since θ could be an obtuse angle the values of $\sin 2\theta$ should be $\pm 120/169$ and not just $120/169$ as given in the answer. Hence it is hoped that the authors will try their best to correct all the errors in the answers in the next edition.

Apart from the errors in the answers, the authors have been quite successful in explaining some of the more difficult concepts in mathematics. Diagrams are used to illustrate the concept of a relation between two sets and are then used to introduce the idea of a mapping (or function). The ideas of function, composite functions and inverse functions are also well introduced.

The chapter on permutations, combinations and probability is well planned. More worked examples are needed for a better understanding and appreciation of the topics. The notation $\underline{B}^V\!\underline{A}$ (the velocity of B relative to Λ) is used in the chapter on relative velocity instead of the usual notation $\underline{v}_b - \underline{v}_a$. This new notation is well introduced and clearly defined.

As a whole, I think that most of the teachers who are teaching Additional Mathematics in Secondary III and Secondary IV or subsidary level mathematics in Pre-university will find this book extremely handy. The authors have put all the materials required by teachers in a single book. This will save teachers time and energy in hunting around for suitable examples and exercises.

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