

BOOK REVIEWS

Murgatroyd's Mind-stretchers by J. and F. Pinkney.
Published by Longman's, \$1.00.

As the title suggests this is a book consisting of 100 humorous problems in logic collected from a series run recently in the Sydney Morning Herald. I warn you that, because of the humour, you may need to watch out for those problems which depend on play on words.

Mathematics by C. Solomon.
Published by Paul Hamlyn, \$1.25.

This is a book mainly for parents who have forgotten the Mathematics they learnt at school because they did not like it. It presents, in an interesting (and sometimes practical) way, such topics as Numbers, Geometry and Probability and has 8 problems and a glossary at the end.

Puzzle-Math by G. Gamow and M. Stern.
Published by Macmillan London, \$2.15, hard cover.

This is a book of 32 puzzles - but with a new approach. To quote the dust-cover: "The authors present their brain-twisters... and stories of human situations in which a seemingly baffling problem is untangled by mathematical thinking". Even if you have heard some of the puzzles before, I am sure you will be fascinated to simply read the stories. Even the prologue of the book makes an interesting (and challenging) story.

Mathematics and the Imagination by E. Kasner and J. Newman.
Published by Penguin Books, \$1.30.

This is a Pelican reprint (in a Paperback) of a book which should be in your school library. In case it is not, I will try to describe this mathematical classic. The authors have packed into this book topics from almost every branch of Mathematics in a most fascinating way. Just some of the topics are the Googol, Cosmic chess, transfinite numbers, Galileo's puzzle, the house that Cantor built, "Pie", complex numbers, geometries, Lobachevskian Eiffel towers, Puzzles, Nim, Paradoxes, chance, change ... and many more. Hours of delightful reading.

Mathematician's Delight by W.W. Sawyer.
Published by Penguin Books, \$0.70.

This is a book for the practical-minded and those who are afraid the previous book will give them mathematical indigestion. To quote the first words: "The main object of this book is to dispel

the fear of mathematics...Mathematical thinking is a tool. There is no point in acquiring it unless you mean to use it." This Sawyer illustrates in terms of Algebra, the mathematics of growth, graphs, speed, curves, areas, trigonometry and maps, and complex numbers.

R. James.

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MATHEMATICS ON STAMPS

A series of 10 stamps issued on 15 May this year, by the Central American country of Nicaragua featured equations important in pure mathematics and physics. Although mathematical equations have from time to time appeared on stamps honouring famous mathematicians and scientists, this is probably the first time that equations have been the main theme. It would not be surprising if other countries issued similar stamps within the next few years.

According to the June issue of the Australian Stamp Monthly the equations were:

- 1 + 1 = 2
- Newton's Law of Universal Gravitation
- Einstein's mass-energy equation
- Properties of logarithms
- Pythagoras' theorem
- Boltzmann's equation about particles in gases
- Tsiolovsky's equation relating velocity of a rocket to its fuel consumption
- de Broglie's equation relating wave and particle properties of matter and energy
- Archimedes' work on levers
- Maxwell's equation on electromagnetism.

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* Tangents
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* Do you know how to draw two tangents from an external point
* A to a parabola, ellipse, circle or hyperbola using only a
* pencil and an unmarked ruler?
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* Just draw any two secants ABC, ADE; join BD and CE by
* straight lines cutting at F and BE, CD by straight lines cutting
* at G and then draw the secant FG to cut the curve at P and Q.
* Then AP, AQ are the required tangents.
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