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Vol II

Mathematical Circles Revisited
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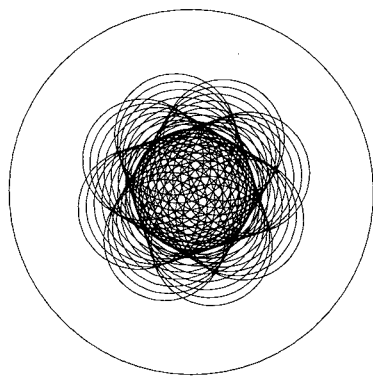
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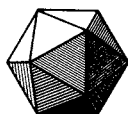
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Vol II

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Mathematical Circles Revisited
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PUBLISHER'S NOTE

For many years Howard Eves, famed historian of mathematics and master teacher, collected stories and anecdotes about mathematics and mathematicians and gathered them together in six *Mathematical Circles* books. Thousands of teachers of mathematics have read these stories and anecdotes for their own enjoyment and used them in the classroom to add spice and entertainment, to introduce a human element, to inspire the student, and to forge some links of cultural history. Through a special arrangement with Professor Eves, the Mathematical Association of America (MAA) is proud to reissue all six of the *Mathematical Circles* books in this three-volume edition.

In Mathematical Circles, the first two books, were published to acclaim in 1969. They are bound together here as Volume I of the *Mathematical Circles* Collection. *Mathematical Circles Revisited* and *Mathematical Circles Squared* are bound together as Volume 2 of the Collection, and *Mathematical Circles Adieu* and *Return to Mathematical Circles* as Volume 3.

This three-volume set is a must for all who enjoy the mathematical enterprise, especially those who appreciate the human and cultural aspects of mathematics.

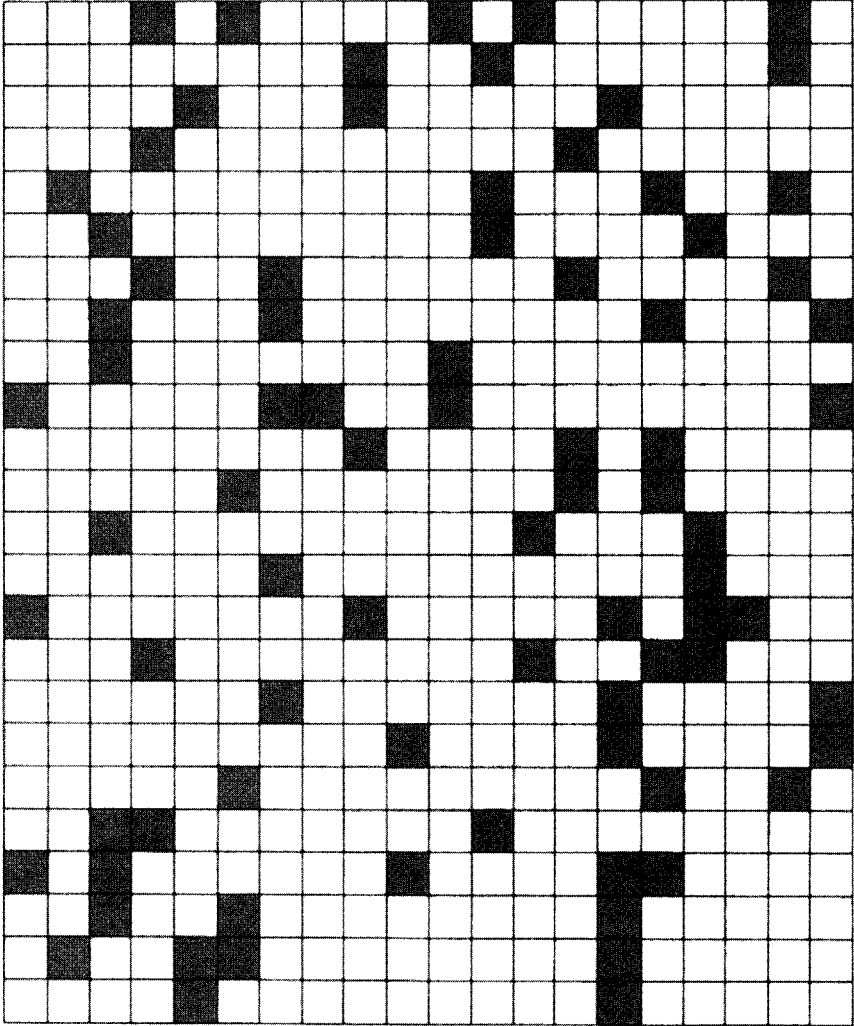
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The “random tiling with π ” is described in Item 144°.

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Mathematical Circles Revisited

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TO DAVID A. BRADBARD
 ROBERT A. ESTES
 LINCOLN T. FISH, JR.
 JOHN K. MOULTON
 TAXIA E. PARAS
 MARY PEABODY, Chairman
 the other six members of the 1969–1970
 Gorham State College mathematics septet
 with deep appreciation and warm wishes

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PREFACE

The reception given to my little work, *In Mathematical Circles* (Prindle, Weber and Schmidt, Inc., 1969), has been so gratifying, and requests from readers that I make the trip around once again have been so numerous, that I here offer a selection of 360 further mathematical stories and anecdotes. The classification of this second set, in contrast to that of the first set, is more by subject matter than by chronology. In this selection I have been a bit, but only a *little* bit, bolder concerning anecdotes of living mathematicians. My collection of stories and anecdotes contains many of this type, but I would not for the world want to tread on anyone's feelings, and the task of securing permissions could be prohibitively extensive. So only a few of these contemporary stories appear here, about colleagues of whose good natures I am assured. These are all people I admire, and anything written of them is done so with affection.

The selection is also purposely a mixture of the light and the serious, of the philosophical and the nonsensical, of levity and earnestness, of old and new, of the shallow and the deep. Some people adore puns, others detest them; some lovingly collect boners and bloopers, others are not amused by them; some respond to classroom humor, others do not; some enjoy terse philosophical nuggets, others are bored by them; some find appeal in poignancy, others are distressed by it; and so on. The truth of the matter is that there is room in the teaching profession for all types of stories, and forbearance is asked of any reader possessing a peeve against one type or another. It would seem that perhaps all types should be preserved as part of the rich folklore of the profession. My sincere thanks go to the colleagues and correspondents who have sent me favorite stories that they said they would like to see in this extended collection. These are all acknowledged by appending the contributors' names to the

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concerned items. Special thanks go to Alan Wayne, who has long collected bits of mathematical humor, and to George Pólya, master storyteller of our field. Many of the stories about numbers and numerals are adapted from the remarkable and scholarly book, *Number Words and Number Symbols, a Cultural History of Numbers* (M.I.T. Press, 1969), by Karl Menninger. Many of the Bourbaki stories stem from a charming narration by Paul R. Halmos in the *Scientific American*. Also, once again I want to thank *The Mathematics Teacher* for allowing me to adapt some stories that appeared in the Historically Speaking section of that journal, a section which I edited for a number of years. Similar thanks go to *The American Mathematical Monthly* for allowing me to use parts of two of its articles. Several of my personal stories stem from my long association with this excellent collegiate journal. Finally, as in *In Mathematical Circles*, certain historical comments and capsules have been adapted from my book, *An Introduction to the History of Mathematics* (Holt, Rinehart and Winston, third edition, 1969); there the interested reader can find extended historical treatments. Undoubtedly many other acknowledgments should be made. The gradual and largely mental accumulation of some two thousand mathematical stories and anecdotes has occupied a goodly number of years, and the passage of time has lost most of the original sources. I accordingly beg indulgence from anyone who may feel that I have stolen his thunder.

The manuscript for this work was written intermittently during a year spent assisting at Gorham State College, one of the units of the recently formed all-state University of Maine. I certainly owe the administrators and the mathematics staff of Gorham State College deep thanks for making my visit both pleasant and productive. I shall long remember the fine associations I made during this visit.

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