

Theory and Application of Liapunov's Direct Method, by W. Hahn.  
Translated from German into English by H. H. Hosentien and  
S. H. Lehnigk. Englewood Cliffs: Prentice-Hall, 1963. x + 182 pages.

This monograph, originally written in German, was one of the first Western expositions of Liapunov's "second method" for the analysis of the stability of motions. It is interesting that it now appears about at the same time in an English edition as Krasovskii's monograph (translated from Russian) on the stability of motion which deals essentially with the same subject (see Vol. 7, No. 1 Canad. Math. Bulletin). Of the two books, Krasovskii's (who has been himself a major contributor on stability theory) is mathematically more sophisticated (and therefore harder to read) than the present one, but the two books cover much the same subject, including many of Krasovskii's contributions. The choice between the two books is probably more or less a matter of taste. Both are lucidly written and well produced.

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Two Books on Unsolved Mathematical Problems:

1. For the layman:

Tomorrow's Math, Unsolved Problems for the Amateur, by  
C. Stanley Ogilvy. Oxford University Press, New York, Toronto,  
1962. 182 pages. \$5.50.

Here we have one of the books which have been written with the purpose to make mathematics interesting for an intelligent person with a reasonable education who may have missed the bus at earlier occasions. The book explains the nature of a mathematical problem in a general way and on special examples which in the past may have startled the world of mathematicians. Moreover the author discusses in more or less detail a number of problems which can be understood by a reader without too much mathematical knowledge. The sections are:  
1. The meaning of an unsolved problem, 2. Applied problems,  
3. Problems concerning games, 4. Geometrical problems,  
5. Arithmetical problems, 6. Topological problems, 7. Probability and combinatorial problems, 8. Problems of infinite sets,  
9. Variational problems, 10. Problems of analysis. The work ends with 30 pages of Notes giving further information on certain problems and statements of the preceding text, their history, development and literature; there is also an index of names and notions occurring in the book. The book is instructive and entertaining.