Idealtheorie. By Wolfgang Krull. Ergebnisse der Math 28 Springer-Verlag, Berlin (1968). xii+160 pp.

This is the second edition of the important report, first published in 1935 and re-issued by the Chelsea Publishing Company in 1948. The first 148 pages are unchanged, except for corrections of minor misprints. There is a new appendix consisting of 8 pages and dealing with results obtained in 1936–39. In particular, there is a new section on local rings containing Krull's famous Intersection Theorem. Furthermore, there is a new section on Prime Ideal Theorems and Dimension Theory for integrally dependent integral domains. Finally, there is a new section on "the most general Discriminant Theorem".

As explained in the preface, the author did not wish to quote any new literature beyond what he had already mentioned in his article in the Enzyklopaedie der Mathematischen Wissenschaften, Heft 5 (1939). Consequently the appendix states conjectures which have already been proved.

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Probabilistic Methods in Applied Mathematics, Volume 1. Edited by A. T. Bharucha-Reid. Academic Press, New York and London (1968). x+291 pp.

This is the first volume of a series which is devoted to the role of the theory of stochastic processes in applied mathematics. This volume contains three papers: *Random eigenvalue problems* by William E. Boyce, *Wave propagation in random media* by U. Frisch and *Branching processes in neutron transport theory* by T. W. Mullikin. These papers are all well referenced survey papers on their respective subjects. Since the literature on these subjects is spread throughout physics, engineering, and mathematics journals, these survey papers are extremely useful. In addition, the problems discussed are important and in need of further mathematical development.

This series should serve a very useful purpose in bringing to the attention of both pure and applied mathematicians the important problems which arise in the various applications of probability theory. It is to be hoped that further volumes will appear in the near future.

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