

## BOOK REVIEW

W.Krull, Elementare und klassische  
Algebra vom modernen  
Standpunkt, I.

From the pedagogical point of view there seem to lie some gap and discrepancy between the so-called "classical" and "modern" algebras. Can we dispense with the classical algebra, such as Fourier's theorem and Horner's method? Or, are these classical facts, which cannot easily be "modernized", also necessary for the gradual comprehension of students? It seems to me that Prof. Krull wrote this book to solve the above question in his own way.

Chapter I deals with the formal calculation of letters in abstract fields. Chapter II contains the vanishing of polynomials including the case of rational coefficients and Sturm's theorem. More concrete

treatment of cyclotomic, cubic and quartic equations appears in Chapter III. Introductory exposition of Galois theory makes the main content of Chapter IV. The theory of cyclotomy and the problem of construction by the compass and ruler are treated in Chapter V. The last Chapter VI deals with the general Galois theory and solubility of algebraic equations.

It seems to the reviewer that this book is an excellent introduction to the modern algebra and enables the reader to comprehend the linkage between the classical and modern algebras. (H.Tōyama.)