

**Van der Waerden, B. L.**

**A history of algebra. From al-Khwārizmī to Emmy Noether.** (English) Zbl 0569.01001

Berlin etc.: Springer-Verlag. XI, 271 p. DM 98.00 (1985).

The author deals with the history of algebra from al-Khwārizmī to Emmy Noether, i.e. the historical development of algebraic equations, groups and algebras is the central theme of this book. Chapters of special interest are those on algebra in Italy, on Gauss, Galois, Hamilton and Emmy Noether. The author divides his book into fourteen chapters. They are as follows: 1) Three Muslim authors (al-Khwārizmī, Tabit ben Qurra, Omar Khayyam); 2) Algebra in Italy; 3) From Viète to Descartes; 4) The predecessors of Galois; 5) Carl Friedrich Gauss; 6) Evariste Galois; 7) Camille Jordan; 8) Early group theory; 9) Lie groups and Lie algebras; 10) The discovery of algebras; 11) The structure of algebras; 12) Group characters; 13) The representations of finite groups and algebras; 14) Representation of Lie groups and Lie algebras. This book is a classic study on the history of modern algebra.

Reviewer: [P.K.Majumdar](#)

**MSC:**

[01A05](#) General histories, source books

[01-02](#) Research exposition (monographs, survey articles) pertaining to history and biography

[12-03](#) History of field theory

[13-03](#) History of commutative algebra

Cited in **4** Reviews

Cited in **38** Documents

**Keywords:**

[Lie groups](#); [abstract groups](#); [Gauss](#); [Galois](#); [Hamilton](#)

**Biographic references:**

[al-Khwārizmī](#);

[Tabit ben Qurra](#);

[Omar Khayyam](#);

[Gauss, Carl Friedrich](#);

[Galois, Evariste](#);

[Jordan, Camille](#);

[Hamilton, William Rowan](#);

[Noether, Emmy](#)