

***Sharh al-Urjûza al-yâsiminya, de Ibn al-Hâ'im***

Texte établi et commenté par Mahdi Abdeljaouad

428 pages

Publication de l'Association Tunisienne des Sciences Mathématiques, Tunis 2003.

Public price: 20 dollars (plus shipping costs)

---

I am pleased to announce the publication by the Association Tunisienne des Sciences Mathématiques de *Sharh al-Urjûza al-yâsiminya*, de **Ibn al-Hâ'im**.

Ibn al-Hâ'im (1352-1412) is the author of many books in arithmetic and algebra : *al-Hâwi fi 'ilm al-hisâb* (1380), *al-Maûna fil hisâb al-hawâ'i* (1389), *al-Wasila fi 'ilm al-hisâb* (1390), *al-Muqni' fil jabr wal muqâbala* (1410), etc.

*Sharh al-Urjûza al-yâsiminya*, written in 1387, is a commentary of *al-Urjûza fil Jabr wal Muqâbala*, of Ibn al-Yâsamin (d.1204). The author aims in this textbook to teach all known algebraic concepts, methods and rules based on the works of al-Karâji (d.1020) and Ibn al-Bannâ (1256-1321) :

- Presentation of algebraic terminology and different methods of resolutions of first and second degree equations.
- Monomial and polynomial expressions; multiplication, division, addition, subtraction and square roots of algebraic expressions.
- Multiplication, division, addition, subtraction and square roots of irrational numbers of the form  $\sqrt{a} \pm \sqrt{b}$ .
- Methodologies for solving algebraic problems.
- Resolution of 45 problems.

Our book contains three parts :

- in Arabic language : an introduction with annotations (52 pages) and the edition of *Sharh al-Urjûza al-yâsiminya*, (208 pages),
- in French language : a presentation which includes a detailed analysis of the algebra used by Ibn al-Hâ'im (124 pages).
- two bilangual tables summarizing mathematical contents of the *Sharh* with modern algebraic formulas and with North African algebraic symbols (44 pages).