Sharh al-Urjûza al-yâsiminya, de Ibn al-Hâ’îm

Texte établi et commenté par Mahdi Abdeljaouad

428 pages


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’îm.

Ibn al-Hâ’îm (1352-1412) is the author of many books in arithmetic and algebra: al-Hâwi fi ʿilm al-hisâb (1380), al-Maûna fil hisâb al-hawâ’i (1389), al-Wasila fi ʿilm 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 Muqabala, 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’îm (124 pages).
- two bilingual tables summarizing mathematical contents of the Sharh with modern algebraic formulas and with North African algebraic symbols (44 pages).

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