

Muhammad Al-Khwarizmi

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OBJECTIVE

Dedicated polymath and Chief Scholar with a strong foundation in mathematics, astronomy, and geography, seeking to leverage extensive experience in manuscript synthesis to advance scientific knowledge and cultural exchange at the House of Wisdom, with the goal of developing foundational algebraic frameworks and cutting-edge astronomical tables.

EDUCATION

Scholar of Mathematics, Astronomy, and Geography | House of Wisdom (Bayt al-Hikmah) approx. 820 AD
Focus: Studied and synthesized ancient Sanskrit, Persian, and Greek manuscripts under the direct patronage of Caliph Al-Ma'mun

EXPERIENCE

Chief Astronomer and Librarian (Lead Scholar) | House of Wisdom, Baghdad 820 AD – 850 AD

- Directed a massive translation movement, rescuing and expanding upon classical works from antiquity.
- Advised Caliph Al-Ma'mun on scientific initiatives, successfully conducting complex astronomical observations.
- Managed one of the world's most robust and historically significant repositories of scholarly manuscripts.

PROJECTS

Al-Kitab al-Mukhtasar fi Hisab al-Jabr wal-Muqabala

- Authored the foundational text of algebra, pioneering systematic solutions for linear and quadratic equations.
- Coined the term "algebra" (derived from *al-jabr*, meaning "completion" or "restoration").

Hindu-Arabic Numeral Integration (Algorithm)

- Developed a framework to adopt the decimal positional number system from Indian mathematics, enabling high-throughput calculation models.
- Simulated mathematical operations including addition, subtraction, multiplication, and division, proving extreme performance gains over Roman and Greek numeral systems.
- Evaluated systemic efficiency, resulting in my Latinized name ("Algoritmi") becoming the namesake for the modern concept of an "algorithm".

Zij al-Sindhind (Astronomical Tables)

- Compiled advanced tables tracking the movements of the sun, moon, and the five known planets.
- Introduced pivotal Indian trigonometric concepts (such as the sine function) into Islamic astronomy.

Kitab Surat al-Ard (Book of the Description of the Earth)

- Corrected Ptolemy's geographical works, providing updated map coordinates for 2,402 cities and landmarks across the known world.

TECHNICAL SKILLS

Mathematics	Algebra (Founding Father), Algorithms, Arithmetic, Hindu-Arabic Numerals, Trigonometry
Sciences	Observational Astronomy, Geography, Cartography, Horology
Languages	Arabic (Fluent/Scholarly), Persian (Native), Greek (Translation), Sanskrit (Translation)

INTERESTS

Navigational Instruments (Astrolabes, Sundials) | Cross-cultural Knowledge Exchange | Earth Circumference Measurement Expeditions