

AL KHWARIZMI AND ARYABHATTA



ARYABHATTA

Aryabhata was an acclaimed mathematician- astronomer. He was born in Kusumapura (present day Patna) in Bihar, India in (born 476 AD—died 550 AD). At the age of 24 he wrote his famous 'Aryabhata'

Contributions:

- The Place value system and Zero
- Value of Pi
- Fundamentals of Trigonometry
- Results for the summation of series of squares and cubes
- The circumference of the Earth to 99.8% accuracy
- Relativity of Motion

AL KHWARIZMI

- Al-Khwārizmī, in full Muḥammad ibn Mūsā al-Khwārizmī, (born c. 780—died c. 850), Muslim mathematician and astronomer whose major works introduced Hindu-arabic numerals and the concepts of algebra into European mathematics

Contributions:

- The completing the square method for solving quadratics
- Algebraic Method of "reductions"
- Solving Polynomials
- Lattice (or sieve) multiplication method
- Developed the first quadrant



CONNECTIONS BETWEEN THEIR WORKS

- 400 years after Aryabhata found the value of Pi, Al Khwarizmi cited this work in his arabic book and further used it for his astronomical works like the Quadrant.
- Aryabhata's close calculation of the earth's circumference lead Al Khwarizmi to invent the quadrant.
- Aryabhata's work on trigonometry guided Al Khwarizmi to find the rotational axis of the earth.

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