Pioneers of Algebra: Firsts & Foundations

Basic Algebra · Practice Test · 8 Questions

1. Which ancient civilization is credited with developing sophisticated methods for solving linear and quadratic equations, documented on clay tablets?

A) Ancient Greeks
B) Ancient Egyptians
C) Babylonians
D) Romans

2. The word 'algebra' is derived from the title of a 9th-century Arabic book. What is the approximate English translation of the term 'al-jabr' from this book's title?

A) The Art of Numbers
B) The Compendious Book on Calculation by Completion and Balancing
C) The Science of Variables
D) The Logic of Equations

3. Who is often referred to as the 'Father of Algebra' for his systematic approach to solving linear and quadratic equations in his influential treatise?

A) Euclid
B) Pythagoras
C) Muhammad ibn Musa al-Khwarizmi
D) Isaac Newton

4. Which French mathematician is credited with being the first to systematically use letters (vowels for unknowns, consonants for knowns) to represent quantities in algebra, significantly advancing symbolic notation?

A) René Descartes
B) Pierre de Fermat
C) Blaise Pascal
D) François Viète

5. The symbol for equality ('=') was first introduced by which Welsh mathematician in his 1557 book, 'The Whetstone of Witte'?

A) John Napier
B) Robert Recorde
C) William Oughtred
D) Thomas Harriot

6. Which Greek mathematician, active around the 3rd century AD, wrote 'Arithmetica', a series of books containing solutions to hundreds of algebraic problems, many of which are now known as Diophantine equations?

A) Archimedes
B) Thales of Miletus
C) Diophantus of Alexandria
D) Ptolemy

7. The concept of analytical geometry, which linked algebra and geometry by representing geometric shapes with algebraic equations, was notably developed by which 17th-century philosopher and mathematician?

A) Gottfried Wilhelm Leibniz
B) Isaac Newton
C) René Descartes
D) Johannes Kepler

8. Which significant mathematical text, published in 1591, introduced the use of a unified and systematic algebraic notation, often considered a major step towards modern algebra?

A) Liber Abaci by Fibonacci
B) Arithmetica by Diophantus
C) Introductio in analysin infinitorum by Euler
D) In artem analyticam isagoge by Viète