

Milestones in Mathematical History

Mathematics · Answer Key · 10 Questions

1. Who is historically credited with the first recorded instance of using a mathematical proof to determine the height of the Great Pyramid of Giza by measuring shadows?

A) Thales of Miletus

- B) Pythagoras
- C) Archimedes
- D) Euclid

2. In which 16th-century work did Gerolamo Cardano first publish the general algebraic solution for cubic equations?

A) Liber Quadratorum

B) Ars Magna

- C) Summa de arithmetica
- D) La Géométrie

3. Which mathematician is credited with the discovery of the first 'non-Euclidean' geometry, specifically hyperbolic geometry, independently of Bolyai?

A) Bernhard Riemann

B) Carl Friedrich Gauss

- C) Henri Poincaré
- D) Giuseppe Peano

4. The 'Pell's equation' is a misnomer attributed by Euler; which mathematician did he actually intend to credit for the study of this equation?

A) Lord Brouncker

- B) John Pell
- C) Pierre de Fermat
- D) Diophantus

5. Who published the first treatise on the calculus of variations, establishing the foundations for the field in 1744?

A) Isaac Newton

B) Gottfried Wilhelm Leibniz

C) Leonhard Euler

D) Joseph-Louis Lagrange

6. What is the name of the first printed mathematical book, published in 1478, which contains the first known appearance of the plus and minus signs in print?

A) Treviso Arithmetic

B) The Elements

C) Liber Abaci

D) De Arte Supputandi

7. Which 19th-century mathematician published the first formal rigorous definition of the limit of a function using 'epsilon-delta' notation?

A) Augustin-Louis Cauchy

B) Karl Weierstrass

C) Bernhard Bolzano

D) Richard Dedekind

8. Who was the first person to prove that the set of real numbers is uncountable using his famous diagonal argument?

A) Kurt Gödel

B) Georg Cantor

C) Bertrand Russell

D) David Hilbert

9. In 1824, which mathematician proved the impossibility of solving general quintic equations by radicals?

A) Évariste Galois

B) Niels Henrik Abel

C) Paolo Ruffini

D) Joseph-Louis Lagrange

10. Which scholar is credited with the first known use of the symbol 'π' (pi) to represent the ratio of a circle's circumference to its diameter in 1706?

A) William Jones

B) Leonhard Euler

C) John Machin

D) Isaac Newton