

Mathematical Concepts and Pioneers

Mathematics · Answer Key · 22 Questions

1. Who is considered the Father of Modern Analysis?

A) Karl Theodor Wilhelm Weierstrass

- B) Rene Descartes
- C) Isaac Newton
- D) Leonhard Euler

2. What theorem is named after Fermat?

A) Fermat's Last Theorem

- B) Pythagorean Theorem
- C) Central Limit Theorem
- D) Bayes' Theorem

3. Which mathematician is known as the Father of Computing?

A) Charles Babbage

- B) Alan Turing
- C) Ada Lovelace
- D) John von Neumann

4. The Equal sign (=) was introduced by which mathematician?

A) Robert Recorde

- B) René Descartes
- C) Gottfried Wilhelm Leibniz
- D) Isaac Newton

5. What is the name of the plane used to represent complex numbers graphically?

A) Cartesian Plane

B) Argand Plane

- C) Phase Plane
- D) Phase Space

6. Who is credited with proving Bertrand's conjecture?

A) Pafnuty Chebyshev

- B) G.H. Hardy
- C) Srinivasa Ramanujan
- D) John Nash

7. What is the name of the theorem related to conditional probability?

A) Bayes' Theorem

B) Central Limit Theorem

C) De Moivre's Theorem

D) L'Hôpital's Rule

8. Which mathematician is known for his work on the theory of complex functions and is associated with Calculus?

A) Augustin Cauchy

B) Bernhard Riemann

C) Karl Weierstrass

D) Leonhard Euler

9. Who developed the concept of the Cartesian plane?

A) René Descartes

B) Pierre de Fermat

C) Blaise Pascal

D) Galileo Galilei

10. What is the name of the theorem that states that a system of linear equations has a solution if and only if the rank of the coefficient matrix is equal to the rank of the augmented matrix?

A) Rouché-Capelli theorem

B) Cramer's Rule

C) Rank-Nullity Theorem

D) Sylvester's Law of Inertia

11. Who is considered a Grand Russian mathematician and known for his work on probability theory and number theory?

A) Pafnuty Chebyshev

B) Andrey Kolmogorov

C) Nikolai Lobachevsky

D) Sofia Kovalevskaya

12. The 'Ars Magna' is a significant work in algebra by which Italian mathematician?

A) Gerolamo Cardano

B) Niccolò Fontana Tartaglia

C) Bonaventura Cavalieri

D) Rafael Bombelli

13. Who is known for his three planetary laws and was a student of Tycho Brahe?

A) Johannes Kepler

- B) Galileo Galilei
- C) Isaac Newton
- D) Nicolaus Copernicus

14. The concept of 'imaginary numbers' was advanced by which mathematician?

A) René Descartes

- B) Leonhard Euler
- C) Pierre-Simon Laplace
- D) Carl Friedrich Gauss

15. What is the name for the geometric shapes formed by the intersection of a cone with a plane?

A) Conic Sections

- B) Quadratic Curves
- C) Curvilinear Figures
- D) Planar Intersections

16. Who is credited with introducing the multiplication symbol (×)?

A) William Oughtred

- B) Gottfried Wilhelm Leibniz
- C) John Napier
- D) René Descartes

17. The 'Fano Plane' is an example of a finite projective plane studied in which area of mathematics?

A) Combinatorics

- B) Number Theory
- C) Abstract Algebra
- D) Topology

18. Which mathematician is referred to as the 'Father of Modern Geometry' and is known for 'Euclidean geometry'?

A) Euclid

- B) Pythagoras
- C) Archimedes
- D) Thales

19. Who formulated the 'Law of Cosines' and is known for contributions to trigonometry?

- A) Regiomontanus**
- B) Nicolaus Copernicus
- C) Johannes Kepler
- D) Tycho Brahe

20. What is the name of the theorem that describes the relationship between the area of a triangle and the lengths of its sides?

- A) Heron's formula**
- B) Law of Cosines
- C) Pythagorean Theorem
- D) Area formula

21. Who is known for the 'Principle of Mathematical Induction' and contributions to number theory?

- A) Peano**
- B) Euclid
- C) Archimedes
- D) Pythagoras

22. The concept of 'Set Theory' is largely attributed to which mathematician?

- A) Georg Cantor**
- B) Gottlob Frege
- C) Bertrand Russell
- D) David Hilbert