

Name _____

Greek Mathematics and Geometry: A Journey of Advancements

Short Answer Key

1. Euclid's "Elements" is significant as it provided a systematic and rigorous framework for the study of geometry, including definitions, postulates, and theorems, which became the cornerstone of geometry education.
2. The Pythagorean Theorem states that in a right triangle, the square of the hypotenuse is equal to the sum of the squares of the other two sides. It is applied in real-life situations, such as measuring distances, solving for unknown lengths in triangles, and in architectural designs.
3. Archimedes contributed to calculus by developing methods for calculating areas and volumes. His work laid the groundwork for integral calculus, which is applied in mathematics, physics, and engineering, among other fields.
4. Trigonometry is the study of relationships between angles and sides of triangles. It is important in navigation and astronomy because it helps in measuring distances, determining positions, and understanding celestial movements.
5. Prime numbers are natural numbers greater than 1 with no divisors other than 1 and themselves. The "sieve of Eratosthenes" is a tool used to find prime numbers by eliminating non-prime numbers in a systematic way.

