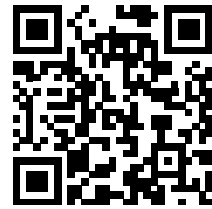


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Mathematical Legacy of the Early Middle East



Ancient Middle Eastern civilizations were among the first to lay the _____ for mathematics as we know it today. The _____ developed a sophisticated system of mathematics, including the concept of _____, which was revolutionary at the time. They used a base-60 numeral system, from which we still derive units for _____ and angles today. This system made calculations more precise and complex constructions possible, such as the famous Hanging _____ of Babylon.

Mathematics in the region was not solely for practical applications like agriculture or construction. The _____, for instance, used geometry to accurately measure land and predict the _____ of the Nile, which was crucial for their farming. They were also pioneers in using simple forms of _____ for building their monumental pyramids and temples, showcasing their advanced understanding of _____ and proportions.

The concept of algebra was further developed by mathematicians in the Islamic Golden _____, a term that refers to a period of cultural, economic, and scientific flourishing in the history of Islam, particularly in the Middle _____. Scholars like Al-Khwarizmi wrote extensive texts that introduced systematic ways to solve linear and quadratic _____, laying the groundwork for modern algebra.

These ancient mathematicians also made significant contributions to _____, developing models of the universe that challenged and advanced previous understandings. Their work was instrumental in the development of the _____, a device that was crucial for navigation and understanding the movements of the stars and planets.

In addition to these practical _____, Middle Eastern mathematicians were interested in the theoretical aspects of numbers. They explored the properties of _____ numbers, the concept of infinity, and the mathematical patterns found in _____. Their curiosity and innovative approaches to mathematics have left a lasting _____ that continues to influence the field today.

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