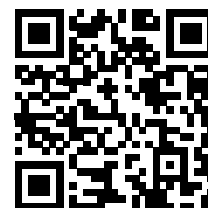


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Trigonometry



Trigonometry, a branch of mathematics, focuses on the study of _____, their angles, and the relationships between their sides. It's a fundamental tool in various _____ such as physics, engineering, and even in everyday life scenarios like _____ and navigation. The basis of trigonometry lies in the concept of the _____ of the sides of right-angled triangles. For any right-angled triangle, the three primary _____ functions are sine (sin), cosine (cos), and tangent (_____).

These functions represent the ratios of different sides of the triangle.

For example, the _____ of an angle in a right triangle is the ratio of the length of the opposite side to the length of the _____ hypotenuse. Similarly, the cos function relates to the adjacent side and the hypotenuse, and the tan _____ is the ratio of the opposite side to the adjacent side. An important concept in trigonometry is the unit _____. This is a circle with a radius of one unit, centered at the origin of a coordinate _____. The unit circle helps to understand angles greater than 90 degrees and to explore the _____ nature of trigonometric functions.

Another key aspect of trigonometry is the use of _____. Angles are measured in degrees or radians, and understanding how to _____ between these units is crucial. The study of trigonometry also involves solving _____ and finding the values of unknown angles or sides in triangles. This is especially useful in _____ like architecture, where precise measurements are critical.

Additionally, _____ plays a significant role in modern technology, aiding in the development of computer graphics and _____ systems.

Understanding trigonometry opens up a world of possibilities in both academic and real-world _____. Its principles are not only foundational in higher mathematics but also in understanding the world around us.

circle

function

triangles

sin

plane

GPS

trigonometry

ypotenuse

equations

tan

ratio

fields

periodic

fields

angles

applications

construction

trigonometric

convert