Name _____

Unraveling the Mystery of the Unit Circle: A Key Tool in Trigonometry

Short Answer Key

1. The unit circle is a circle with a radius of 1 unit, centered at the origin of a coordinate plane.
2. The quadrants of the unit circle are divided based on the signs of the x and y-coordinates: positive x and positive y in the first quadrant, negative x and positive y in the second quadrant, negative x and negative y in the third quadrant, and positive x and negative y in the fourth quadrant.
3. Sine and cosine values are determined by measuring the distance along the unit circle from the positive x-axis to a point on the circle and using the x and y-coordinates of that point.
4. Tangent is calculated by dividing the sine value by the cosine value at any point on the unit circle.
5. The unit circle is considered an important tool in trigonometry because it provides a visual representation of trigonometric functions and their relationships, making it easier to understand and apply them in problem-solving.