Unit Circle and Trigonometric Functions

Today's Standard

HSF.TF.A2 - Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.

Real-World Applications for this Standard

Modeling periodic phenomena such as sound waves; Analyzing circular motion in physics; Engineering applications involving signal processing; Navigation and GPS technology; Electrical engineering for alternating current analysis

Today I Learned

Today, we learned about the unit circle in math. The unit circle helps us understand angles and trigonometric functions like sine and cosine.

Common Stumbling Blocks

Some students think trigonometric functions only work for angles between 0 and 360 degrees, but they work for all angles! Also, some think the unit circle is only for degrees, but it works with radians too.

Quiz Me

- What is a unit circle?
- What are radians?
- Can angles be more than 360 degrees?
- Name a trigonometric function.
- What is an example of using trigonometry in real life?

Help Me

The unit circle helps us understand angles and trigonometric functions. We use these ideas in real life, like in sound waves and GPS technology.