Inverse Trigonometric Functions

Today's Standard

HSF.TF.B6 - (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.

Cues	Notes
Inverse Trigonometric Functions	Inverse trigonometric functions are created by restricting the domain of the original trigonometric function.
Domain Restriction	A function must be one-to-one (pass the horizontal line test) to have an inverse.
One-to-One Functions	
Misconceptions	Common misconceptions include confusing the inverse with the reciprocal and thinking trigonometric functions can be inverted over their entire domains.
	Real-world applications include engineering, astronomy, and medical imaging.

Summary

Understanding inverse trigonometric functions involves restricting the domain of the original function to make it one-to-one. This concept is essential for solving complex equations and has various real-world applications.