



Inverse Function Analysis

Today's Standard

HSF.BF.B4 - Find inverse functions.

Cues	Notes
What is an inverse function?	An inverse function reverses the input-output pairs of the original function.
How do you determine if a function has an inverse?	A function has an inverse if it is one-to-one, meaning it passes the horizontal line test.
What is the horizontal line test?	The horizontal line test checks if any horizontal line intersects the graph of the function more than once.
Difference between inverse and reciprocal	The inverse function reverses inputs and outputs, while the reciprocal is the multiplicative inverse.
Real-world applications of inverse functions	Inverse functions are used in cryptography, solving equations, and engineering processes.

Summary

Inverse functions reverse the input-output pairs of the original function. To determine if a function has an inverse, use the horizontal line test. It's important to distinguish between inverse functions and reciprocals. Inverse functions have many real-world applications, including cryptography and engineering.