



Composing and Combining Functions

Today's Standard

HSF.BF.A1c - (+) Compose functions. For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.

Cues	Notes
What is function composition?	Function composition involves applying one function to the results of another.
Why does the order of composition matter?	The order of composition matters because the output of one function becomes the input of another.
Give an example of a real-world application of composed functions.	Examples: predicting temperature changes, calculating compound interest, modeling population growth.
What are common misconceptions about composing functions?	Misconceptions: order doesn't matter, confusing inputs/outputs.
How can we address these misconceptions?	Use visual aids, specific examples, and step-by-step practice to address misconceptions.

Summary

Function composition is a key skill in mathematics, involving the application of one function to the results of another. Understanding the correct order and addressing common misconceptions are crucial for mastering this concept.