Interpreting Linear Models

Today's Standard

8.SP.A3 - Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.

Real-World Applications for this Standard

Predicting plant growth based on sunlight exposure; Analyzing the relationship between study time and test scores; Examining the correlation between exercise duration and calories burned; Forecasting sales based on advertising spend; Determining the impact of temperature on ice cream sales

Today I Learned

Today, we learned how to use a line to understand the relationship between two things, like how more sunlight helps plants grow taller.

Common Stumbling Blocks

Some kids might think the slope shows the total change, but it actually shows how much change happens each time. Others might mix up the y-intercept with the starting point, but it really shows what happens when the other thing is zero.

Quiz Me

- What does the slope tell us?
- What is the y-intercept?
- Can you give an example of a linear model?
- What happens if the slope is zero?
- Why do we use linear models?

Help Me

A linear model helps us understand how two things are related. For example, if you study more, you might get better grades. We use these models to make predictions and understand real-world situations.