Modeling Linear Relationships

Today's Standard

8.F.B4 - Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Real-World Applications for this Standard

Predicting costs based on a fixed rate (e.g., taxi fare); Calculating distance over time with constant speed; Determining salary based on hourly wage; Analyzing trends in stock prices

Today I Learned

Today, we learned how to make a function that shows how two things change together. We figured out how fast things change and where they start by looking at graphs and tables.

Common Stumbling Blocks

Sometimes, kids mix up how fast things change with where they start. Another tricky part is finding the starting point on the graph; it's always where x is zero.

Quiz Me

- What is a function?
- How do you find the rate of change?
- Where do you find the initial value on a graph?
- What does the slope tell you?
- What is the y-intercept?

Help Me

A function helps us understand how two things are related. For example, if you know how much you get paid per hour, you can figure out how much you'll make in a week. This helps us make predictions and understand patterns in the real world.