Assessing Function Fit with Residuals

Today's Standard

HSS.ID.B6b - Informally assess the fit of a function by plotting and analyzing residuals.

Real-World Applications for this Standard

Analyzing the residuals of a linear regression model to determine its accuracy in predicting house prices.; Using residual plots to evaluate the effectiveness of a marketing campaign based on sales data.; Assessing the fit of a trend line in a scatter plot of temperature changes over time to predict future climate patterns.

Today I Learned

Today, we learned how to check if a line fits a set of points well by looking at the differences between the points and the line.

Common Stumbling Blocks

Some kids think that if there are a few big differences, the line is bad. But it's more important to look at all the differences together. Others think all differences should be small, but they just need to be spread out evenly.

Quiz Me

- What is a residual?
- Why do we plot residuals?
- What should we look for in a residual plot?
- Is one big residual a problem?
- Should all residuals be zero?

Help Me

We use residuals to check how well a line fits some points. In real life, this helps us see if our guesses or predictions are good, like guessing house prices or weather changes.