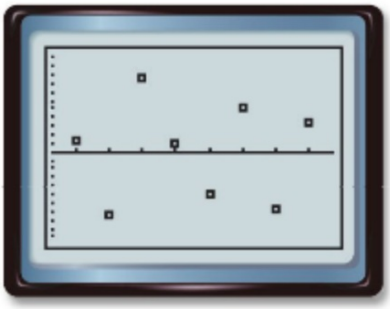
Algebra 1 4.6
Write equations of best-fit lines using linear regression (graphing calculators)

best-fit line
linear regression equation
median-fit line (use linear regression instead)
correlation coefficient (r)

Disregard residual

Real-World Example 2 Graph and Analyze a Residual Plot

HOCKEY Graph and analyze the residual plot for the data for Guided Practice 1A. Determine if the best-fit line models the data well.



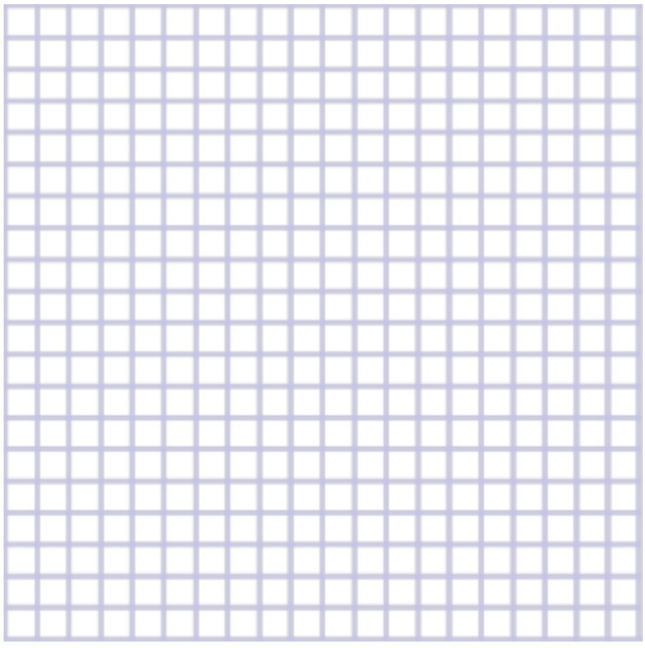
[0, 8] scl: 1 by [−10, 10] scl: 2

We need an equation before we can answer the question!

Real-World Example 3 Use Interpolation and Extrapolation

PAINTBALL The table shows the points received by the top ten paintball teams at a tournament. Estimate how many points the 20th-ranked team received.

L_1	Rank	1	2	3	4	5	6	7	8	9	10
L_2	Score	100	89	96	99	97	98	78	70	64	80



Linear regression (line of fit) instead

Example 4 Median-Fit Line

PAINTBALL Find and graph the equation of a median-fit line for the data in Example 3. Then predict the score of the 15th ranked team.

