

ZMATH 2016c.00921

Scariano, Stephen M.; Swim, Edward W.

Reconciling the least-squares and point-slope forms of a line for the two-point problem.

Math. Comput. Educ. 49, No. 3, 167-176 (2015).

Summary: The article presents a discussion on the topic of Least-Squares Regression. Explored is the statistical theory depicting the slope and intercept of Least-Squares Regression as well as the point-slope formulation of the equation of a line connecting two data points. Analyzed is the Pearson Correlation Coefficient along with Euclidean axioms.

Classification: K85

Keywords: statistics; teaching; natural sciences; least-squares approximation; linear approximation; regression; analytic geometry; equations of straight lines; slope-intercept form; point-slope form; Pearson correlation coefficient; sum of squares due to error