

Expectation

1.1 The student will model, analyze, and apply linear functions.

Essential Questions

What makes a relationship linear?

Why are linear functions useful?

Enduring Understandings

Linear functions represent situations involving a constant rate of change.

The characteristics of linear functions and their representations are useful in solving real-world problems.

Indicators

1.1.B.1 solve real-world problems using linear equations and linear inequalities.

1.1.B.3 analyze patterns of change in data to determine if a linear relationship appropriately models the data.

1.1.B.4 interpret the slope and y -intercept of a linear equation in the context of a real world problem.

1.1.B.5 represent the equation of a line in slope-intercept form.

1.1.B.6 determine a linear trend line to a scatter plot of data.

1.1.B.7 apply linear functions to model data with a regression equation and make predictions using the function.

1.1.B.8 interpret and solve problems involving piecewise functions.

1.1.B.9 determine the rate of change (slope) of a linear function represented numerically, algebraically, and graphically.

Vocabulary

extrapolation

horizontal intercept

interpolation

piecewise function

regression line

relative error

vertical intercept