

F Functions

- **8.F.A Define, evaluate, and compare functions.**
 - **8.F.A.1 Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.**
 - [Interpret graphs of proportional relationships \(8-I.9\)](#)
 - [Identify functions \(8-Z.1\)](#)
 - [Does \$\(x, y\)\$ satisfy the linear function? \(8-Z.3\)](#)
 - [Evaluate a linear function \(8-Z.8\)](#)
 - [Complete a table for a linear function \(8-Z.9\)](#)
 - [Complete a table and graph a linear function \(8-Z.10\)](#)
 - [Interpret points on the graph of a linear function \(8-Z.11\)](#)
 - [Find values using function graphs \(8-Z.21\)](#)
 - [Complete a table for a function graph \(8-Z.22\)](#)
 - **8.F.A.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).**
 - [Compare linear functions: graphs and equations \(8-Z.13\) \(12\)](#)
 - [Compare linear functions: tables, graphs, and equations \(8-Z.14\)](#)
 - **8.F.A.3 Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear.**
 - [Graph a line from an equation in slope-intercept form \(8-Y.6\) \(84\)](#)
 - [Identify linear and nonlinear functions: graphs and equations \(8-Z.17\)](#)
 - [Identify linear and nonlinear functions: tables \(8-Z.18\)](#)
 - **Checkpoint opportunity**
 - [Checkpoint: Understand functions \(8-Z.\)](#)
 - [Checkpoint: Compare functions \(8-Z.\)](#)
 - [Checkpoint: Linear and nonlinear functions \(8-Z.\)](#)
- **8.F.B Use functions to model relationships between quantities.**
 - **8.F.B.4 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.**
 - [Write equations for proportional relationships from tables \(8-I.2\)](#)
 - [Write equations for proportional relationships from graphs \(8-I.5\)](#)
 - [Find the slope of a graph \(8-Y.1\)](#)
 - [Find the slope from two points \(8-Y.2\)](#)
 - [Slope-intercept form: find the slope and y-intercept \(8-Y.4\)](#)
 - [Graph a line using slope \(8-Y.5\)](#)
 - [Write a linear equation from a slope and y-intercept \(8-Y.8\)](#)
 - [Write a linear equation from a graph \(8-Y.9\)](#)
 - [Write a linear equation from a slope and a point \(8-Y.10\) \(90\)](#)
 - [Write a linear equation from two points \(8-Y.11\) \(58\)](#)
 - [Constant rate of change \(8-Z.7\)](#)

- [Write a linear function from a table \(8-Z.12\)](#)
 - [Write linear functions: word problems \(8-Z.15\)](#)
- **8.F.B.5 Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.**
 - [Write linear functions: word problems \(8-Z.15\)](#)
- **Checkpoint opportunity**
 - [Checkpoint: Construct and interpret linear functions \(8-Z.\)](#)
 - [Checkpoint: Sketch and describe graphs \(8-Z.\)](#)