Unit 5: Linear Functions

Dear Parents/Guardians,

Students continue the work from Unit 4 to formally connect the slope of a line to its context in a graph. In Lesson 1 students visually determine the direction of a line and determine the slope of a line by counting on a graph. They connect their counting method to calculating the slope using the slope formula. In Lesson 2 students revisit determining the y-intercept and write equations of linear functions in slope-intercept form. In Lesson 3 students derive the equation of a line. They interpret the slope and y-intercept in tables, graphs and equations. They apply their knowledge of slope to help solve non-routine problems.

Slope of a Line

Roughly speaking, the <u>slope of a line (*m*)</u> is the slant of a line. There are two ways students will find the slope of a line.



Write Equations in Slope-Intercept Form

Students will represent the graph of a line as an equation in slopeintercept form.







By the end of the unit, your student should know...

- Whether a line has a positive or negative slope [Lesson 5.1]
- How to find the slope of a line by counting and by using the slope formula [Lesson 5.1]
- When line segments lie on the same line or on parallel lines [Lesson 5.1]
- The slope-intercept form (equation) of a line [Lesson 5.2]
- How to identify and interpret the slope and y-intercept of a line in tables, graphs, and equations [Lesson 5.3]
- How to apply slope concepts to nonroutine problems [Lesson 5.3]

Additional Resources

 For definitions and additional notes please refer to Student Resources at the end of this unit.